Address

TO THE

STUDENTS ON GIVING THE PRIZES AT ST. THOMAS'S HOSPITAL, OCT. 1, 1891.

By SIR GEORGE HUMPHRY, F.R.S.

GENTLEMEN,—Let me first congratulate you who have succeeded as the victors in the late campaign—not simply on account of the laurels you have won, but rather on account of the qualities, the ability, and the willingness for work by virtue of which you have now succeeded, and which we may be sure augur well for future success. Let me hold before you the example—the living and bright example—of him who has long carried the palm not only in surgery, but in the esteem and affection of the members of the profession, and who was the most distinguished prize-winner of his own and probably of any other time; and let me apply to each of you the sentiment of the great poet of old—

"Macte novâ virtute puer sit itur ad astra,"

with the remark that you must ascend to greater and greater heights by a continuance of the means which have carried you thus far, and must ever have the ambition to add yourselves to the bright lights which already shine in the firmament of St. Thomas's.

To you, gentlemen, who entered the lists and did not win I would apply the words of the far-sighted great Cardinal of France, "Never say fail." In proportion as you tried well, so did you not fail, for good work is never a failure, but even bears its own success with it. To have made a good fight, especially on such a field, to have fought and lost, is far better than never to have fought at all. Indeed, it may be said that to lose is sometimes better than to win, forasmuch as it tells of the weak points in one's harness and stimulates to strengthen and repair them; and if you have come out of the fight with good kindly feeling towards the winners, with increased capacity and willingness to rejoice with them that do rejoice, then, indeed, are you sincerely to be congratulated on the greatest of victories, the victory over those quiet ranklings of jealousy which are the insidious underminers of so much happiness and good feeling, and to which the struggle of life in our profession renders us certainly not less liable than those who are moving in other walks of life.

And surely I may congratulate all of you upon entering into a profession which teems with interest, the work of which is to investigate the forces and phenomena in the various realms of nature and bring them to bear upon the improvement of the highest of nature's products—the human body. I well remember the new life of joy that opened upon me when, at the age of sixteen, I passed from the drudgery of Latin and Greek and the other ordinary school subjects to the study of the elementary facts and theories of physics and chemistry in the surgery of a medical man, and felt the glowing light of natural science dawn upon me, and realised the glorious liberty of walking in that light and applying the knowledge gained through it to the practice of medicine and surgery; and as I went the other day to the Naval Exhibition at Chelsea and witnessed the marvellous inventions there shown for destruction and the representations of slaughter, the dead and the dying, and the scene of the great admiral in the dim lantern light of the little cockpit, with those around mourning the fatal shot that was carrying off England's greatest hero, I could not but feel thankful to have belonged to a profession the whole work of which is to apply science to the preservation rather than to the destruction of life and limb. It is no small thing, gentlemen, to be entering a profession of such stirring interest and such far-reaching beneficence; and you are entering it at a time when the interest of it is greater than ever, and when the prospects of its future scientific and practical extension and proportionate beneficence seem to be unlimited. The advance in the half-century of my own time, in this Victorian era, has been unprecedented and enormous. The chariot wheels of change have rolled furiously along, travelling over more ground than had been measured in centuries before, and whirling us through new facts and theories till we are almost lost in the multitude of experiences and blinded with the flashings of new discoveries. At the time when I began, anæsthetics and antiseptics had not been dreamt of, there were no excisions of joints, no abdominal operations, and a host of proceedings which are now of everyday occurrence were unknown. It was an antediluvian period without temperature thermometers, without spectroscopes and aspirators, without iodide of potassium, cod-liver oil, or salicylic acid. One might almost say without microscopes or knowledge of minute anatomy or any but the rudest physiology; and the treatment of wounds was still one of the great opprobria of our practice. If in the past half-century we have advanced with such ever-increasing railway speed, what will be the state of things when you take the retrospect of the half-century now beginning which holds out such enticing prospects in bacteriology, the application of electricity and other ways? I cannot but envy you the prospect of witnessing the realisation of these advances which we dream of, and still more if it be, as it must be with some of you, your privilege to assist in that realisation.

All this is matter of special congratulation to you, forasmuch as it offers such opportunities for the gratifying that love of knowledge which is one of the special attributes of man, and which is one of the great sources of his enjoyment and happiness. No human being is without that love; it is the heritage of everyone; and, damped though it be by school routine and examination dread, it cannot be quite killed. It has its roots firm in the breast of each one of you, and will grow up into a goodly fruit-bearing plant if you nourish and nurture it fairly. The food which it requires and upon which it flourishes best is fresh knowledge. Every acquisition of knowledge increases our enjoyment, and increases also the capacity and the desire to get more. A thing well learnt is a joy for ever, and opens up fresh sources of greater joy which happily are inexhaustible. Advance as we will, a new and wider and more charming region is ever before us. As in the starry heavens the highest powers of the telescope reveal a wider expanse for still higher powers to explore, so with the greatest knowledge of the things which seem the simplest there is probably a greater unknown still to occupy us, and the pride of knowledge must ever be curbed, while the love of it is intensified, by the consciousness that the ultimate of anything can never be reached. We need not fear to draw deeply and fully from the wells of science, for they never can be exhausted, and in all the coming ages of man there will still be a vast unknown to stimulate his thoughts and to fortify his hopes.

One of the important changes in medical study which have taken place in the half century of my time is increase of accuracy, increased accuracy in observation, and increased accuracy in recording, associated with the greater refinements of chemical analysis, and the use of the microscope and other scopes, of the clinical thermometer, the experimental work in the laboratories, and the more careful records of cases, of post-mortem appearances, &c. It is by accuracy that almost all great and good work is done. Accurate work is good work, and inaccurate work is bad work. Accuracy, bear in mind, is but another word for attention and painstaking. Upon these two are reared the edifice of talent and success. Talent, as has been well observed, is the faculty of painstaking; and that education alone is good education, whatever may have been the medium employed, whether classics, mathematics, or any other, which cultivates attention and painstaking. This applies to all the walks of life. Nelson won his battles because he was a serious, careful, attentive, most painstaking student of naval tactics. Wellington gained his victories because he gave great attention to the details, small and great, of his campaigns. All great orators, from Demosthenes downwards, have taken great pains in preparing their speeches. All great operators—by great operators I mean successful operators—consider beforehand the plan of their operations, the instruments they will require, the difficulties they are likely to encounter, and the means they will employ to meet them. They sketch in their mind's eye or on paper the stages of the proceeding and the attendant possibilities, just as Nelson sketched the line of action he proposed to follow, and which he carried out, at Trafalgar before the battle commenced. Such men have that well-grounded confidence which prevents nervousness. Nervousness, be assured, whether in operation or examination, indicates want of attention, want of preparation, and consequent want of knowledge. You may dispute this, you

may say that you cannot help being nervous, that you cannot always command your attention, that you are liable to be distracted; but remember, this is chiefly, to a large extent at any rate, because you have not been in the habit of commanding your attention, have not exercised the practice of controlling and exacting obedience from your mental faculties, because you have not taken pains to train your mental batteries to converge well and quickly upon the required point; in short, because the training of that faculty upon which what goes by the name of talent essentially depends, has not been cultivated in you. Do not therefore confess to nervousness. Certainly do not make it to yourselves or others an excuse for imperfection, but strive to prevent it; and you will best overcome it by acquiring that knowledge which gives confidence.

Thoughtful painstaking is one of the coördinates with intelligence. A bird will build its nest without it, but it is quite certain that you cannot do the like for yourselves. Our bodies are not intended to be mere automata, but are calculated to serve high purpose under the controlling influences of intelligent will. There must be the will, and where the will is the way will develop itself. To those who have the faith of strong will and determination the mountains of difficulty are removed and cast into the sea. They look large before you, and they are large. It is best for you to feel that they are so, and to each generation of students they are larger than they were to their predecessors. The steeps of knowledge to be climbed, and the examination-portals to be passed are ever on the increase. They have increased not a little during the half century that I have spoken of; and I must confess to the feeling that were I now an occupier of the benches before me I should look ahead with some dismay, and I wonder whether I should have the determinate will to make these many mountains remove. However, we may assume that the means and facilities for overcoming the difficulties have increased in like proportion to the difficulties themselves. As the mountains have enlarged, the provisions for scaling, for tunneling, and for removing them have been multiplied. Books have been adapted and teaching has been systematised; museums have been enlarged, laboratories have been instituted, and clinical work organised. The harvest is ready, and it is for you to go and reap and gather in.

The great point is so to gather in information as to keep it in. With all the advantages that surround you, you can scarcely help gathering in enough. It forces itself upon you and soaks into you from all directions in a school like this; but if your minds be like the leaking cisterns of the Danaïds, you will leave St. Thomas's Hospital with them little more filled than when you entered. How is this fatal leakage to be prevented? I can make only one or two suggestions. In the first place, be brisk and intent upon what you are about. Cultivate that habit, and it will require no small effort unless you have already done so. It is not so much the time spent about your work as the manner in which it is spent. One man will learn in an hour as much as another in a week. You are sometimes surprised at the amount which an apparently idle man has contrived to acquire. He has done it because when at work he was not idle, but made brisk use of his time; he was intent on that upon which he was engaged. You may dissect the body half-a-dozen times over and not know so much about it as another who has gone over it only once. You may have dawdled round the wards for the three appointed years and have received certificates of diligent attendance without being able to recognise the simplest cases of disease, because (it is an expressive phase) you were not at any time "all there." Present in the body you may have been, but that will have availed little if you were absent in spirit. You must be earnest and hearty in your work, giving your whole man to it if you are to make progress in it. It is easy enough to judge whether the student is doing this and is in the habit of doing it; and the good examiner quickly appreciates this, and thus "takes stock," as it is said, of the candidate. In after life you will find it is the medical man who impresses his patients by his intentness in the investigation of their cases, and the consequent well-founded decision of his remarks, who gains their confidence. They are quick to recognise the keenness of eye which is the invariable associate of keenness of attention.

Do not take shelter under the excuse that you have a bad memory. That will not avail you. On the contrary, take care not to be guilty of having a bad memory; for memory, like most mental qualities, is to a considerable extent under your own control. It consists, in the first place, in sharpness of impression, which is to be effected by intentness on what you are about; and, secondly, it depends on the ability to recreate or recall the impression at the right time, which is dependent upon the activity of the mental effort. Good memory, therefore, resolves itself into attention and briskness—attention in receiving impressions and briskness in recalling them. Most persons can remember what they are interested in because they give attention to it. A great aid to memory is the repeating what has been learnt, whereby the impressions are restamped and facility in recalling them is acquired. For instance, each day when returning to the dissecting-room run over in memory the part you have already finished. Do not let the work of yesterday slip away under the pressure of that which has to be learned to-day, or you will be much in the case of the Danaïds I have already referred to. I do not think much note-taking at lecture is good. Make some notes afterwards if you please, and examine yourselves from time to time upon them. The very best clinical lesson is the writing out, from memory, in the evening—or, better, next day—the particulars of the cases (or some of them) which you have seen to-day. Nothing so well as this will teach you to observe cases thoroughly, and to observe them so as to remember them, for when you come to write them out you will be reminded of the deficiencies in your observations and the need of more exact and methodical attention in future.

It is, however, not the mere gathering in of information, the loading of your brains with facts, that must content you. The facts are stored there for the purpose of being used, of being reflected on, and appropriated as required. Thought should be the fellow-worker with observation. The chief use of a fact is as a peg to hang a thought on, and a certain amount of theory is the spice which gives flavour to the dish, the cement which holds the materials in an available and useful form. Theories, it is true, come and theories go, but as they pass they give stimulus and zest to our thoughts, sharpen our observation of facts, and give impulse to fresh investigation. How signally true has this been of the evolution theory, whether it proves to be ultimately correct or not; and that which raised Newton, Darwin, and Hunter above the level of ordinary men and made each so great a force in advancing science and thought was the combination in each of unusual thinking or reflecting power with that of careful observation. How much easier is it to remember a certain number of facts if they are strung together by some little process of thought, and how much better is this than the rather discreditable resort to "tips." If a limb assumes a given position when dislocated in a given way, how infinitely better is it to apply your anatomical knowledge in explanation of the position than simply and thoughtlessly to learn the symptoms by rote; how much more certain will you be in your diagnosis, and how much more likely will you be to recognise and account for those deviations from the ordinary course of things which sometimes occur, and which cause our chief difficulties in practice.

Above all, be gentle, tender, kind to patients, to the poor no less than to those who are in better circumstances. Never give pain with finger, tongue, or manner if you can avoid it. It is of course often necessary to give pain, and then it should be done determinedly and forewarnedly, but it should not be done thoughtlessly. In order to avoid it, and indeed as the best method of examining a case, use your eyes well in the first instance. In order to inculcate this, I am in the habit of cultivating what I call "eye-diagnosis" in my pupils. I ask them to tell me, or to tell me approximately, what the nature of the case is by eye-observation—to ascertain, that is, as much as possible, and form some opinion in this way. I then allow them to touch or handle so as not to give pain, and, lastly, to ask a few questions which should have a definite purpose, and indicate the line of thought as to the case. My motto often repeated, and which is probably familiar to some of you, is, "Eyes first and much, fingers next and less, tongue last and least." The importance of this method was much impressed upon me by observing, as an examiner at the College of Surgeons, how repeatedly the candidates mistook the cases for want of it. They began fingering and asking questions of the patients by which, especially as they could not well know what questions to ask, they were usually misled; and they were not set right till I said, "Now,

quietly look at the case without touching or talking, and you will probably soon see what is the nature of it." This is the method which a good practical physician or surgeon naturally adopts, so naturally that it scarcely occurs to him to suggest it to his students; but if I have succeeded in impressing it upon any of you, if I have caused you to look at the cases well, to glean all that you can with your eyes before you apply your hands, and before you ask questions, I feel that I shall have done you some service. Do not be in a hurry; do not fancy you can jump to conclusions; do not think what you have to do is easy, or you do not do it well because you will not take pains about it. It is not easy to do anything well.

I will trouble you with only one further remark. I have said that the love of knowledge is natural to man. I may add that so also, happily, is the love of good. It, like that of knowledge, is inherent and deep-rooted in the human breast, and cannot be quite extinguished. There is no man who does not, naturally, prefer good to evil and who does not prefer good people to bad people. Many things choke and seem to blot out this feeling, but there it still ever is. To be without it would be the realisation of what we mean when we speak of "devilish." To cultivate it is, of course, more important even than to cultivate the love of knowledge; and this is best done by recognising, and heeding, and rejoicing in the good points in others rather than their bad points. We all like good-hearted persons. We all desire to be esteemed good-hearted, and to be good-hearted. We know that good-heartedness will cover a multitude of deficiencies. Its most marked feature is that it takes a favourable, kindly view of others, especially of their failings; and each one of you will find that he is advancing towards this desirable character, and is growing in the esteem and affection of his fellow-students and of all who know him, as well as in self-respect and happiness, in proportion as he inclines to appreciate the good qualities of others, and to make allowance for their shortcomings, and to be not severe to mark what they have done amiss. To the great motto, "Evil be to him who evil thinks," may we not add, as its more important corollary, "Good will be to him who doth good think."

Gentlemen, my best wish to you is that you may deserve success and happiness in your life's career, being assured that, if you do deserve them, there is no profession more likely to yield them than the one upon which you are entering.

Address

TO THE

STUDENTS OF ST. GEORGE'S HOSPITAL, OCT. 1, 1891.

By G. FIELDING BLANDFORD, M.D.

THERE has been a controversy of late years as to whether introductory lectures are good things or not. Much may be said on either side, but my own belief is that St. George's Hospital is right in welcoming its students in this way, both those who are now commencing their hospital career and those who are returning to begin another session refreshed and invigorated by a long vacation. It was not always so at St. George's. When I began, many years ago, there was no introductory address, but there was a meeting in the board-room for the presentation of prizes, and the chairman, Sir Charles Clarke, gave good advice to the students. He spoke of the books which were necessary, and said that amongst these (I quote from THE LANCET) there should be found in every student's library Hippocrates, Celsus, Sydenham, Brande's "Dictionary of Science and Art," and Abercrombie on "Moral and Intellectual Culture." There are many to be added to this list now. Many changes have taken place at St. George's. At the time I speak of the ground I stand on was Tattersall's yard, and instead of medical students it was thronged by horse-loving people of all sorts, from the peer to the groom. Tattersall's is gone, and the school of St. George's is come, for in my time the school was at some distance in Kinnerton-street, and we had to oscillate—teachers and pupils—between the school and the hospital. Some of the lectures were here, some there. The dissecting-room, the chemical laboratory, the anatomical museum were there; the library and pathological museum were here. You enjoy a great advantage in having the whole on one spot. You have a refreshment-room, which we had not; and often for lack of time we had to go without a lunch—an important matter for hard-working youth. You have a reading-room also to refresh your mind and relieve it from the monotony of study. The hospital, too, has been enlarged, and improvements therein are still going on, which we hope will add to the healthfulness and usefulness of that institution which we all love and prize. But the changes which have happened in these forty years are not merely changes in buildings whether of the hospital or the school, whether for the benefit of the patients or of the students. There have been changes in our knowledge and views of disease so vast and so far-reaching that they seem almost like a tale of fairy-land or magic. They are changes of greater importance to the human race than those produced by railways or electricity, or the penny post, for they concern the life of man. Formerly diseases peculiar to a hospital were the terror of the surgeon. Phagedæna attacked wounds even of the most trivial kind. Pyæmia killed many after operations performed under the most favourable circumstances, and, as you are aware, many operations which are now done every day could not be attempted owing to the great mortality. Look where we will we find changes—changes in our view of disease, changes in the treatment of disease, changes in the prevention of it. And researches on all these points are still going on, and knowledge is advancing every day. Can anything sound more marvellous, would anything have appeared more marvellous to our fathers than the course and progress of Pasteur's researches? Pasteur was and is a chemist. His first researches were purely chemical, and it was while investigating the discovery by Berzelius of what are called isomeric bodies—that is, compounds which possess an identical composition, but are absolutely different substances when judged by their properties—that he discovered the reason why the two acids contained in wine lees differed the one from the other, the one deviating the plane of a polarised ray of light to the right while the other does not. He proved that the inactive acid is made up of two compounds, each possessing the same composition but differing in properties, the one being the dextro-rotatory tartaric acid, the other a new acid rotating the plane of polarisation to the left. And these two acids can be separated one from the other by a process of fermentation started by a mere trace of a special form of mould. Here was the commencement of the long train of experiments and research which has gone on till now, and has produced such marvellous results. This fermentation, which was the result of all these experiments, led to the investigation of the fermentations of beer and wine, which up to this time were not to be explained, and were an enormous difficulty to chemists, brewers, and wine-makers. The beer and the wine often became vinegar, and none knew why. Pasteur taught the brewer and the wine-maker to take the microscope into the brewery, and by it to ascertain whether the yeast is pure or whether it contains forms which will turn the beer sour and render it worthless. He taught the value of cleanliness, the necessity of excluding disease organisms from the pipes and vessels. In short, he did for brewers and brewing what Sir Joseph Lister has done for surgery, guided by Pasteur's investigations. In this way he conferred an inestimable benefit on all engaged in these trades. His next labour was in a totally different direction. In 1865 he was entreated by his friend Dumas, the celebrated chemist, to try to find a remedy for the silkworm disease which was devastating the silk districts of France, and had been raging there for twelve years, till the silk industry was brought to the very verge of ruin. It was a matter of national importance. Every conceivable remedy had been tried, and tried in vain. As happens so often, all kinds of nostrums had been used. "Gases, liquids, and solids had been laid under contribution. From chlorine to sulphurous acid, from nitric acid to rum, from sugar to sulphate of quinine—all had been invoked on behalf of the unhappy insect." All the practical people having failed, at last a scientific man was called in. They had ascertained before his arrival that certain microscopic corpuscles were to be seen in the blood and tissues of the diseased caterpillars, and even in the eggs, but if they were not visible in the

eggs it was supposed that the latter were free from infection, and that their incubation would therefore be successful. Pasteur showed that unless the moth were free from disease the eggs would not be healthy, even if no disease was visible in them. He proved this against the opinions of many by a series of experiments and prophecies founded on them, and in twelve out of fourteen cases there was an absolute conformity between his prediction and the result, and none could resist the conviction forced upon them. Now, his method was this. Every moth and her eggs were kept separate, and when the moth had laid her eggs her body was crushed and carefully examined by the microscope. If disease was found the eggs were burned; if there was none they were saved. This process is still carried on, and by dint of rigid examination the silk industry of France, which is a matter of millions sterling, has been saved. But not content with the benefits he had conferred on the brewers and wine-makers and silk growers, Pasteur now turned his attention to other matters and other diseases, and ascertained that which is the basis of his great discovery, the treatment of rabies, and of so much that is now being experimented upon and discussed in modern medicine.

And now, gentlemen, you will see why I have thought fit to bring before you this day the story of Pasteur and his works, and to tell you about his discoveries, although most of you have heard it all before, and are perhaps tired of hearing it again. The reason is that Pasteur's system of vaccination brings us back to the origin of all vaccination, to the work of Edward Jenner, and Jenner, I need not tell you, was a St. George's man. Jenner established the fact that the vaccination by cow-pox prevented small-pox, and Jenner thereby saved hundreds and thousands of human lives. But from this isolated discovery Pasteur has generalised the deduction that most if not all infectious diseases can be dealt with in the same way. His researches on fermentation, leading him to a knowledge of the nature of the poison of such diseases, showed him the possibility of so attenuating or weakening the virus as to furnish a general method of protective or preventive inoculation. I am not going to narrate in detail his experiments. He first applied his doctrines to the disease called chicken cholera, and by the artificial cultivation of the organism showed that the inoculation of the modified virus rendered the fowl exempt from the disease. Then came the experiments with regard to anthrax, which is also called splenic fever or woolsorters' disease. Here again the microbe by cultivation has its virus so attenuated that the weakened poison when inoculated preserves the animals. Lastly came the most remarkable of all his discoveries, that of the prevention of rabies or hydrophobia. This most fatal and terrible disorder before his time bade defiance to all remedies, and it was invested with terrors and horrors such as belong to hardly any other. I well recollect a lecture upon it in this hospital, and the hopeless nature of the treatment suggested. The difficulty here was all the greater, inasmuch as the special microbe of rabies could not be cultivated outside the animal body as others could. But experiment solved the problem, and experiment showed that even after a bite from a rabid dog inoculation would prevent the consequences and protect the individual.

Now let us look for a moment at the result of all this, all the fermentations and microbes or bacilli, the cultivations and inoculations of this French chemist. What are they all to us—to you? Did any of us forty years ago even in our dreams imagine the things we read of now? We were well acquainted with tuberculosis and phthisis, but none of us would have believed that the seeds of the disease could be conveyed in the milk that we drink or the beef that we eat. Now we see a Congress of the scientific men of Europe gravely discussing the danger of the use of tuberculous food and of intestinal infection thereby. Not that inquirers are agreed upon this or any other point at present. Some think that the tubercle bacillus is derived from the air by inhalation, and point to the contagiousness of the sputa. Some say that in infancy the tuberculous diseases of the lymphatic system are due to enteric absorption, while the adult is infected by inhalation. Then there is the great question of disinfection in the living body, of which you have heard so much in connexion with the inoculation of tuberculous patients by means of Professor Koch's tuberculin. Other experimenters have injected the blood of goats in phthisis, the goat being quite immune from tuberculosis. One physician has used the serum of dog's blood, the dog being nearly exempt from the disease. There have been many extraordinary experiments with the serum of blood, experiments which may throw quite a new light on the action of blisters. Indeed, Dr. Lauder Brunton thinks that not only the action of blisters, but that also of bloodletting, may be explained by these new experiments and investigations. "Experiments upon animals," he says,[1] "have shown that withdrawal of blood from the veins causes absorption of proteid matters from the tissues, and these may have an action of their own upon the blood and tissues generally, with which they are thus brought into contact." Blistering we have not abandoned, though bloodletting is out of fashion. It may be that both these old remedies may derive new value from modern discoveries. Among the latter are the chemical ferments produced in the system, the albumoses or ptomaines which may exercise so disastrous an influence. You will have to study how the intestine can be disinfected. External antiseptics we practise every day, but remedies for internal use are still under consideration. Here, again, the purgatives, the calomel and blue pill of our ancestors, may have had effects beyond any which they themselves ever dreamed of. Advances will surely be made in this department, and new modes of treating disease will be the result, to the great benefit of the patient. As it is, we have the bacillus of cholera, of pneumonia, of diphtheria, of typhoid, and I need not say of tuberculosis. But this is not an address in medicine, and far be it from me to intrude on the province of my worthy friends your lecturers on medicine, who will make all this plain to you, and post you up in the very latest investigations, while the lecturers on surgery will teach you the value of antisepsis. In the special department of medicine which I have studied for many years there have been fewer changes, perhaps, than in many others. This is to be accounted for by the fact that insanity is not a zymotic disease. No one has, so far, discovered a microbe in an insane brain. Whether one will be found, or anything in the shape of a material product of the brain disorder to which we give this name, who at present can say? He will be a rash man who will prophesy as to what will or will not be discovered in medicine in future years. The changes in the treatment of the insane are due, chiefly, to the invention of new drugs, and these are numerous and valuable. When I first commenced practice we had no sedative worth mentioning, except opium and its preparations, and these were as often hurtful as beneficial. Now what a list there is; one, too, which receives new additions from chemical science every year. In the knowledge of diseases of the nervous system the advance has been great. If you compare any of the modern text-books with those of thirty years ago you will find that a new literature on the subject has sprung up, and Dr. Ferrier's experiments and localisation of the brain regions together with antiseptic surgery have made operations on the brain practicable, and the skull is now opened with almost as much impunity as the abdomen. In diseases of the brain and nervous system you have an ample field for study and research, and one of great interest. Allied to this is a subject now attracting much attention; an old subject again revived, one hotly contested, often surrounded with much humbug and trickery, but one which may at some future time demand your careful study even more than it does now. I allude to the phenomena of hypnotism, as it is now called, which is nothing else but the mesmerism of the last generation.

Such are some of the problems which at the present time are engaging the attention of experimenters and receiving new development every day. It is an age of transition, when fresh light is being thrown from unexpected quarters upon old phenomena, and if these thirty or forty years have produced so much, and brought about changes of such importance, what may not the next thirty or forty years witness? This is a thought which should greatly stimulate and encourage you young men, who are now commencing your medical career. There is an old story of Abernethy the surgeon, who is said to have exclaimed when he entered his crowded class-room at the commencement of the session, "Good God, what is to become of you all?" I have no such fears for you. You are entering upon a period full of promise, full of hope. It seems to me that there never was a time in which one could set forth on the path of medical science with so sure a prospect of reaping a rich

[1] Address in Medicine, British Medical Association, 1891.

reward. For there is now a scientific basis on which medicine can found itself, which it has long lacked; and the old empiricism is foredoomed to give way to something more in the nature of exact science. For all there is work, work to be done by patient experiment and long-continued observation. There is work to be done in the biological laboratory, in pathology, in chemistry, and with the microscope. And those who work will reap the fruit of their labour. It was said long ago, I know not by whom, that in France every private soldier carried in his knapsack the bâton of a field-marshal. You will not become field-marshals. But patient work and investigation may bring you laurels even more glorious, and a name worthy to be named with those of Hunter, Jenner, or Pasteur.

You will not, however, all of you be employed solely in scientific inquiry. Some of you will be physicians, some surgeons, some accoucheurs; some, probably a good many, will choose that which, it seems to me, is the happiest branch of all, general practice. I always envy the men who go from patient to patient, from one disease to another, from slight cases to severe cases, from medicine to surgery, who find in their hard work the variety which gives it zest, and encourages them in what is often a long and arduous day. Whatever your ultimate aim, you are here to-day to study disease. Scientific research can be carried on in a laboratory. Anatomy and physiology can be studied in a school or at one of the universities. Chemistry likewise can be learned at any institution that is properly equipped for the teaching thereof. But the diseases of the human body which you will be called upon to treat, whether as physicians, surgeons, or general practitioners, you can only study in the wards or out-patient departments of a hospital, and you will not find the time of your curriculum, even if it be five years, any too long for acquiring the knowledge of which you stand in need. Book learning will only help you in this to a certain extent. Your own observation and experience gained in these wards, and your recollection of cases seen by you, must be called upon when you have to treat disease yourselves, and it is for this reason that I wish to impress upon you the necessity of habitually looking upon and observing the sick, and noting the appearances they present when suffering from this or that disorder. It has, I believe, been said that a first-year's student can learn but little and profit little in the wards of a hospital, that he must first get through all that long string of examinations with which he now is blessed, and then he will be in a fit state of mind to do clinical work when he is free to forget everything he has already been examined in, and can apply himself wholly to medicine and surgery. I demur to this doctrine altogether, for a student, even in his first year, has eyes in his head, and can note what he sees, even if he does not understand the meaning of it all, or try to master all the physical symptoms. The student will not be alone. He will hear from the physician or surgeon, or from those around him, what is supposed to be the matter with the patient. If it is a head case, there may be either complete or incomplete insensibility. The latter may be due to apoplexy or epilepsy, to uræmic poisoning or intoxication, to compression or concussion. Cannot a first year's student note what he sees in such a patient, and lay up in his memory the appearances he observes? And when the symptoms are not those of coma, but of delirium, the difference may be noted between the delirium of fever or pneumonia and that we call delirium tremens, or that which follows epilepsy, or that of ordinary mania. So, again, we may notice the difference in patients suffering from diseases of the chest. Here is one with acute pneumonia with a dusky, dingy flush on his face, a heavy eye, abdominal breathing, and a short, dry cough, in every way a contrast to the man with acute bronchitis. There we see the chest heaving, the alæ nasi working, the eye open and bright, the countenance anxious, while the cough is loud and sonorous. Then another patient may be suffering from pleurisy, with elevated shoulders, breathing as little as possible with the chest on account of the acute pain. Yet, again, we observe one whose thin face and high cheek bones betoken phthisis: his eyes glassy, his countenance wan and pale, pupils dilated, and the cough hacking and irritable. Some of the patients you will see here will be greatly emaciated, but this emaciation may be due to various causes. The aspect of the patient labouring under malignant disease will differ from one whose emaciation is due to phthisis. The colour of the face will be different; in the former we do not see the shining lustre of the cornea and the prominent globe of the eye, so characteristic of phthisis, and the breathing will of course be widely different. Then we shall see emaciation in connexion with renal disease and with hæmorrhage. You will also find in your private practice, though possibly not often in this hospital, great emaciation in patients, especially women, who are suffering from hysteria or hypochondria, and, under the idea that they are afflicted with dyspepsia, starve themselves. The diagnosis in these cases is frequently extremely difficult, but you will be greatly assisted therein by that study of the physiognomy of disease which I hope you will practice here. There are various classes of people whom you may meet with in the course of your medical career where your diagnosis will be baffled and not assisted by the patient for one reason or other. First, there is that hysterical class of whom I have just spoken. There is scarcely a disease which may not be simulated by these persons. You may find the extreme of emaciation due to the avoidance of food on account of some fancied dyspepsia or disease of stomach, or you may hear complaints of pain in this or that region, pain of the most intense or agonising character, and all kinds of tricks and stratagems may be resorted to in order to give colour to the complaint. Your acquaintance with the physiognomy of real disease will aid you greatly in the conclusions you form concerning the hysterical. Another class are the malingerers, people who pretend to be ill for various reasons, criminals in prisons who, to escape hard labour and get to the infirmary and better diet, simulate disease. A very anxious and responsible task it is to say that without doubt such men and women are shamming. Then in private practice you will meet with patients of quite an opposite kind, children and young people who wish to conceal the fact that they are ill because they do not like physic and the doctors, or because their amusements and occupations will be impeded and interfered with if it is established that they are out of health and that precautions are necessary to keep them from further mischief and restore them to their normal condition. Also you may have to see, as I often have, lunatics or imbeciles who are quite incapable of telling you what is the matter. You notice that they are not so well as usual, that appetite fails, that sleep is interfered with. But it is often most difficult to arrive at a conclusion as to what is the matter, and the general knowledge of the aspect and physiognomy of disease will here serve you well, if you have accustomed yourselves to study it during your hospital career.

You will not, however, have to trust to eye or hand alone for the diagnosis of disease. The list of instruments which you will call to your aid is becoming a long one, and time, which has added so many in these forty years, will assuredly add more. First of all, there is that most important one, the clinical thermometer, which by itself may be said to have effected a revolution in medical treatment. By it we learn the progress of fever and are warned of the danger of great hyperpyrexia in such a disorder as acute rheumatism. We know that unless we can reduce that temperature by artificial means the patient will die. What would our fathers have said had they been recommended to ice their patients when they were like to die of rheumatic fever? Then there is the ophthalmoscope, the laryngoscope, the otoscope, the cystoscope, and nowadays we also have for our researches the spectroscope, and that which is perhaps the most important of all, the microscope. Bacilli must by this be examined, and the sputa and all products containing them. Chemistry and the microscope were Pasteur's chief assistants in working out his investigations, and neither of them can you dispense with. If to the microscope you apply the oxyhydrogen lantern, you will be able to draw that which you see with the greatest ease and accuracy. And this mention of drawing leads me to say a word or two on this subject. Drawing now is almost a necessity in the study of anatomy, histology, or pathology. Not only for the purposes of teaching, but for learning also and notetaking it is indispensable. Teachers or students, you must all draw. People say to me sometimes, "I cannot draw." My answer is, "Did you ever seriously try? You did not write the first time you tried, but acquired the power after long practice and wearinesses of the fingers." You can all write; I think I may presume to say this, or you would not be here. Many doubtless write very badly. This, too, would be improved by drawing; for I observe that all my friends who are artistic write a good and legible hand. Practice will enable you all to draw, and I strongly

urge you to begin at once. There is, you are aware, at St. George's a society for the encouragement of drawing. I do not know whose idea it was to start this society, but I am quite sure that, whoever he was, he deserves a medal. A year ago the president of that society was Sir Prescott Hewett, and I will use this occasion to deplore the loss of that distinguished surgeon and no less excellent artist. The first person I ever spoke to at St. George's, the first person I ever heard lecture there, was Prescott Hewett, and many acts of kindness spread over many years will ever endear his memory to me. But the Graphic Society has another President, your senior physician, Dr. Dickinson, and I feel confident that under his auspices it will flourish exceedingly, and that all St. George's men will draw, whether for educational and professional purposes, or for their amusement in their leisure time. And this brings me to my last topic—a piece of advice which I give you, and you can give your patients. Every working man—and you are all working men—should have, besides his daily professional work, some amusement, occupation, hobby, call it what you will, to which he can turn for relief and distraction of thought. If you look at the lists of the scientific societies of London, you will see how largely they are filled by men who are busy by day in various callings, bankers, merchants, lawyers, and others, and who amuse and refresh themselves in leisure hours by such pursuits. But I see many as patients who have no resource of any kind to fall back upon. If illness or any other cause stops their daily routine of work, their minds are void of all occupation, and their life is one of utter boredom. Mere out of door amusement is not enough; it must be something to divert the mind, not merely to exercise the body. There are sciences of all kinds, from astronomy downwards; and many of these, as geology or zoology, are akin to anatomy, which you all have to study, and should be specially interesting to medical men. Whatever it is, have something, a *parergon*, as the Greeks called it, a bye-work, something besides and beyond your daily task, however beloved the latter may be.

Address

TO THE

STUDENTS OF UNIVERSITY COLLEGE, LONDON, OCT. 1, 1891.

By VICTOR HORSLEY, F.R.S., F.R.C.S., B.S.,

ASSISTANT SURGEON TO UNIVERSITY COLLEGE HOSPITAL; PROFESSOR OF PATHOLOGY IN UNIVERSITY COLLEGE, LONDON.

GENTLEMEN,—I had considerable hesitation in accepting the responsibility of addressing you to-day, from the feeling that it would be impossible for me to say anything to you which had not been vigorously and eloquently discussed by one or other of my predecessors. On inquiry, however, I found that, almost without exception, these addresses were devoted either to the consideration of medical politics or of recent changes in medical education, or, finally, to the panegyric of medicine as a splendid and noble profession. On this last point it is, I believe, quite unnecessary for me to further dilate. In the first place, you would not, I am sure, have selected it as your means of gaining a livelihood had you not been fully convinced of its merits; and, secondly, so striking an object lesson in disinterestedness is being daily afforded by the members of the profession already engaged in it that no words of mine are needed to emphasise its virtues more clearly. I do not myself know of any other profession the constant aim of whose members is to deprive themselves of their own sources of income for the good of the public, yet this Quixotic act is that which is exemplified by all those who are striving to forward sanitary work and to strike at the roots of disease. I may perhaps add that the public are not apparently conscious of this view of the case, or organised attacks on such individuals as Pasteur, Lister, and others and their followers would not be permitted, and the rewards which would be assigned to such benefactors of society would more adequately represent their services. As, however, I have been saying, disinterestedness is a distinguishing mark of the profession, and both the public and the State seem equally determined that it shall continue to be so.

On the subject of medical politics I shall only speak in passing, as the sole point of interest at present is that the University of London, with a senate that represents directly nothing in particular, none of whose members, with but one exception, is in touch with the present teaching in the medical schools, and which has demonstrated its general incapacity by failing to reform itself, is about to witness the foundation by State interference of a rival university to satisfy the very obvious and reasonable requirements of London students, though at the cost and trouble necessarily involved in the existence of two universities. However, no extensive reform has ever been accomplished without considerable waste of time and energy, and it must be supposed that the inability of the present senate of the University to do more than carry out the wishes of Convocation many years after that body has proposed changes will gradually be converted into efficiency as soon as the wholesome pressure from without shall have sufficiently metamorphosed the conditions prevailing among its members. Medical education, on the other hand, is, like the poor, always with us, and offers, like them, many suggestive problems. Being a branch of physical science, it is always changing, always requiring reform as general knowledge increases. I shall to-day only incidentally touch upon one or two points connected with it, as I intend to devote the time allotted to me in considering a subject which concerns us all—namely, what the factors are which shall enable us to succeed in the practice of our profession, not merely to succeed in gaining a livelihood, but in properly fulfilling the other part of our duty, the furtherance of general medical science by the accumulation of fresh facts and the invention of fresh procedures for the relief of suffering humanity. The mere fact of our entering a profession at all means, as a rule, that we have to make our way, and the question must be very forcibly before all of you at this moment (as I well remember it was before me when I was one of the audience), What opening will there be? What can possibly turn up that should offer at the end of one's studentship the opportunity of earning a livelihood?

It is my desire to endeavour, as far as I can, to point out what openings there are, and, from my brief knowledge of the world, what precautions are advisable to secure success. Let us take what we may regard as the baser point of view first; I mean the commercial or business aspect of the question. And here let me say at once that, whereas in many respects our giving our work for money differs notably from ordinary transactions of commerce, it does seem a ridiculous travesty of sense that the justly honoured position of the Fellowship of the College of Physicians is hampered by the anomalous restriction that the holder of it may not recover by ordinary legal process what is most justly due to him and honestly earned. We all have in our hands the capability, and it is most widely exercised, of foregoing monetary obligations in cases where the circumstances of the patient make such an abnegation a pleasure; but there is no reason why the unscrupulous should be able to obtain by deliberate fraud without payment medical services of the utmost importance and value. Looking at our work, then, from the point of view of practice as a commercial process, it seems to me that the problem to be considered resolves itself into, What do our patients ask for from us? If a patient or his friends come to you, there are three things which he or they wish to know: 1. What is the matter with him? 2. How will it end? 3. How can he be relieved or cured? Now, the first of these is diagnosis; the second, prognosis; and the third, treatment. Of these, to my mind the second—viz., prognosis—is unquestionably the most important to the patient and his friends, and it is plain why this should be so. For in the large majority of cases, even if their nature be explained in the easiest possible and most popular manner, the public learn little or nothing from the statement that they have such and such a disease; and even if, as appears to be the developing fashion, they buy a dictionary of medicine, and read up the article which treats of their particular complaint, they are very little wiser. They come to you, therefore, for your special or expert knowledge of what the disease will do, how it will end, and what will be their future, and this is the most difficult part of our work as well

as the most important. Many think that an empirical knowledge of treatment is the royal road to success, and that it is enough to cultivate that. I am sure this is a profound mistake. If it were really so, then quackery would take the place of scientific medicine, since there are always a number of dupes ready to testify to the wonderful virtues of any given quack treatment, and blazon abroad at the same moment its powers and their own credulity. The fact is that although numbers of the public, especially of the highest and lowest classes, who for different reasons are the furthest removed from science, are easily deceived by such abominations, the vast majority are not. The mass of the people know that there is an impossible in everything, and they either ascribe a failure in treatment to its true cause—viz., the limitations of medical knowledge,—or they are usually ready to suggest that the unfavourable termination of the case was due to the interference of Providence, and that of course fully absolves the unsuccessful efforts of an immature science. It is not, therefore, treatment alone which is the essential of professional success, although of course one "good case," as it is called, brings another, and I shall later on revert to this part of our subject. That the decision as to the future of a case, or, in other words, the prognosis, is the most important factor for you to steadfastly hold in view is obvious in a hundred ways. Not only the possibility of assuring a patient that he will recover, but a limitless number of questions, all of the deepest gravity, to himself and friends, or to his social, professional, or commercial interests, are equally involved in it, and upon it depends their solution. To look, therefore, at every case in its widest bearings, to judge correctly the course it will take, is the capability which the public will require of you, and in which they will always repose the utmost confidence. It will be my object presently to show that in attempting to equip yourselves for this purpose you will be fulfilling not only the dictates of a logical analysis of scientific education, but that you will, at the same time, accomplish much for the advancement of the highest interests of our profession.

I now come to the first point of detail which concerns you—namely, how you can best arrange your work while you have still the delightful privileges and endless opportunities of studentship. In the first place, while speaking of a studentship, I cannot refrain from congratulating those who are here for the first time on the choice they have made of University College as their school of thought. I do so for the simple reason that the University has always taken the lead among the London schools in advancing the knowledge of medical science. It has always provided the highest education earlier than other schools, and I believe this is true not only of the metropolis, but of the United Kingdom. An idea seems to exist that whereas the college may furnish all that is requisite, the hospital falls short. While, of course, most anxious for many reasons, of much more import than mere size, to see the hospital rebuilt, it seems to me that if the opportunities it offered have proved adequate for men like Lister, Liston, Erichsen, Jenner, Russell Reynolds, and others, none of us has much right to say it is too small a field for him upon which to found a sound knowledge of the clinical aspect of his work. But although the opportunities for work may be specially good here, I must fulfil my promise of attempting to show how we may make the best use of them. There are, it seems to me, always two phases of any education, whether technical or primary: the first is that wherein, consciously or unconsciously, we are training ourselves how to learn—that is, how to observe, and how to form accurate deductions; and the second is that wherein we are accumulating facts. To us both are of vital importance, and it is an extraordinary thing to my mind that there are persons—I am sorry to say, actually in the profession itself—who, very ignorant themselves, do not understand the absolute necessity of our acquiring, for the purposes of diagnosis, a precise knowledge of the minutest points in anatomy and physiology. Believe me, it is not merely not a waste of time to devote yourselves as much as possible to this work, but it is an absolute necessity, if you are to fulfil one of the first requirements of success—viz., the power of forming an accurate diagnosis. If you have forgotten the branching of this nerve or artery, or the parts of the medulla oblongata or cerebellum, you may rely upon it that one of your competitors in life has not, and for that lack of knowledge you may suffer in reputation. To ridicule the acquirement of knowledge has always been the custom of quacks and empirics or a symptom of retrograde degeneracy. Let us hope that the progress of general education will soon extinguish such a tendency, which can readily enough be shown to spring from the miserable cry of "*Cui bono?*" with which science is, unfortunately, only too familiar.

Do not, therefore, grudge any time given to elaborating as far as possible your knowledge of anatomy and physiology. Join every class that offers the means especially of learning practical physiology. The handling of instruments, the making of accurate records, which are the essentials of practical physiology, will give you the best training for the wards that can be imagined, and at the same time will give, if possible, more life and an intense interest to a study which, invaluable and indispensable in itself, becomes still more attractive when one is actively engaged in its pursuit; while it has no equal for cultivating the faculty of observation, upon which both the diagnosis and treatment of diseases are founded. Quite recently another notion has been revived—viz., that the storing up of facts is not necessary, and that what is required is the inculcation of general principles. But, as a matter of fact, the recognition and clear understanding of a great general principle is only perfectly possible when we have mastered the details of a concrete example or examples of its application; and this recent advice, to put the cart in front of the horse, would as much help on the progress of medicine—which, do what we will, is always too slow—as assist the movement of the vehicle in the proverb.

Suppose, now, that you have availed yourself to the utmost of your opportunities, and have accomplished successfully the passage of the various examinational Rubicons which bar the way to the training oneself in clinical work in the hospital wards. Here it is no exaggeration to say that we are obliged to enter on a new series of considerations altogether. The fact is, that with the beginning of hospital life we should think of the special phase of medical work in which we shall find ourselves afterwards. Some of us are, unfortunately, obliged to qualify ourselves for practice as soon as possible, and engage at once in the hard responsibilities of earning a livelihood. A very few intend to persevere as specialists or consultants in the metropolis. With these two classes of men I have little to do, since they form a marked minority; but I wish at least to try to follow the fortunes of the man who ultimately goes into general practice, and to consider before you how the hospital career he chooses may be made the most effective for him in his after struggles; what the difficulties are against which he will have to contend, and how they may be best overcome. The opening of a man's hospital career is the same for all; and while I am praising the traditions of University College I cannot forbear from quoting the utterly unbiased evidence of some friends of mine, who, directing as they do large institutions, and therefore constantly testing the clinical work of numbers of men drawn from the various schools, have often volunteered to me the statement that the system of note-taking and training in the groundwork of hospital duties at University College Hospital is nowhere excelled.

After fulfilling the duties of all junior positions—i.e., dresserships, clerkships, &c.—in the hospital, everyone should, if possible, begin to acquire a knowledge of the direct responsibilities which are entailed by the immediate or personal care of cases. Considering, however, the necessarily limited number of positions as house surgeon, physician, &c., which exist in one hospital, you may ask what are the unsuccessful competitors to do? There are various ways in which they can obtain the necessary experience, which I am particularly anxious to press forward as very desirable in your best interests. These ways of obtaining the responsible care of patients are either the gaining of hospital appointments elsewhere, or that of taking an assistantship to a practitioner with a large practice. I do not, however, myself believe that anyone can occupy a position of this kind for more than six months with advantage, owing to the fact that the responsibility is not absolute, but of the invaluable and absolutely indispensable training which it gives no one can speak too highly. That no one, except he be forced by the *res angusta domi*, should enter practice without this special training is sufficiently evidenced by the following considerations. From time to time anyone who reads the medical papers sees every few years someone lamenting the extinction of the old apprenticeship system, and suggesting that the modern student is far less efficient as an all-round physician than his predecessors in a parallel stage of development.

That such regrets are most ill-founded and the comparison quite misleading I am convinced; and I assert that the modern student, if completely educated, is, both as a diagnostician and as the deviser of treatment, infinitely superior to the rule-of-thumb production of the old apprenticeship system. But that such statements must have some basis of fact is clear, otherwise we should not hear so eminently powerful a voice as that of Mr. Wheelhouse raised in support of this, to me, terribly retrograde assertion. The truth lies in this part of it—namely, that a modern student, if he be only imperfectly educated—that is, if he has managed to scramble through the requirements of the licensing board in the shortest possible time, if he has not had the six months' care of patients himself which I have just insisted on, if, I say, such a three-quarter trained man goes into the country and is suddenly called upon to treat a case of mild measles—a disease he has probably never seen—he will of course be at an utter loss. But I submit that there is neither justice nor logic in selecting a man thus incompletely trained as a representative of his class, and then comparing him with an apprentice whose whole time has been occupied with just the kind of work quoted above. Take the two men six months later, and on which side will the comparison be favourable? Surely on that of the modern student, whose better training, added to the quickly acquired knowledge of the empirical treatment (so-called) of common every-day diseases, will furnish a man of far greater value than the apprentice, who remains in the mire of empiricism exactly where he was. The inference to be drawn from a consideration of this subject is, if we examine it closely, of course, the practical point I raised—viz., the desirability of putting the future practitioner in a position of responsibility of some kind or another—it matters little what or where, provided the opportunities are fair.

At the end of this period of six months' charge of cases, everyone, it seems to me, should at once devote six months to attending systematically the best special hospitals in London—i.e., the ophthalmic, nerve disease and gynæcological institutions, finally attending a course on mental diseases. In connexion with the last point, it is very greatly to be hoped that Mr. Brudenell Carter's scheme of establishing a central hospital for insanity in all its forms will succeed, inasmuch as the student will then have before him the means of acquiring in the shortest time, as well as in the most efficient manner, knowledge of that very special form of medical practice. The economising of time is so essential for all of us, that this plan of a central asylum, though for some unexplained reason keenly opposed by the alienists, would be one of the best schemes for our assistance as students which has yet been devised. Supposing, further, that the student is thus very thoroughly qualified, will he of necessity succeed? is, I expect, the question you would now propose to ask. Ultimately I have no doubt, if he honestly works; but there remains a coping-stone to the edifice which but few men add, and yet which I believe to be of fundamental importance—that is, foreign travel and experience. In only one other profession—the law—is it so necessary for a man to have studied human nature as much, and in a very much more varied shape, than that presented to him by the microcosm of hospital life or British private practice. There is one way, and but one only, by which this consummation may be attained, and the acquisition of which will go further, believe me, to enable you to reap the fruits of years of earnest work as a student than anything else, and that is experience abroad. At present, many men seek this final qualification by "taking a ship," as it is said; in other words, going as surgeon on some steamship or other. This is but half doing it at the best, and has the disadvantage that the horizon is very limited, being practically bounded by the number of persons on board, who, as a rule, require very little attention. Besides, a man has "no time" or inclination to read on board ship. For these reasons, six months, or at the outside a year, will give all the experience that one can draw with benefit from this method of studying the whims and fancies of our fellow-men. The far better plan is to go abroad to attend hospital practice on the Continent. Many are deterred by the expense, others because the wretched education of our schools in foreign languages makes them feel helpless when out of sound of their mother tongue. Neither of these considerations should weigh for a moment. Living abroad is extremely cheap, and a few evenings a week before starting will go a long way towards overcoming the last-mentioned difficulty; and if there is no time for that even, there are ample opportunities at Vienna, for so many English and Americans now go to work there, that the specialist courses are actually given in English. Besides, it is not absolutely necessary that you should understand the language at first. The study of what you see will for some time be of ample interest and instruction, and meanwhile you can speedily pick up enough to understand what is said of a case, especially as fortunately everywhere medical terms are almost cosmopolitan. I cannot sufficiently express the very varied way in which the experience of foreign work reacts upon one; but perhaps a concrete example will make it clear that it is not only a matter of general improvement, but an actual question of education, which may or may not weigh heavily in the scale for or against you in after life. Take, for instance, the joint disease in locomotor ataxy. Years after Charcot had carefully described this condition, and deposited specimens at the Salpêtrière, its bare existence was discussed in this country, and even discredited in open discussion. So, too, with functional nerve disease. I feel sure that no one who has not been to Paris, and seen the hysteroid condition in its extreme development, can realise fully this form of neurosis or how it is to be dealt with. The breadth of thought, besides, to gain which nothing is better than travelling, and which is absolutely necessary for you to be able to gauge the depth of people's minds, is really the outcome of your trying to understand others; and it is obvious that without such special training a man must be very exceptional who can, on his entry into work, visit a number of patients in a morning, listen quietly to all their innumerable complaints, and sympathise with all their wants. Even after a man has finished his six months' charge of cases, six months' work in the special hospitals, and six months abroad, there are circumstances under which he may have time to further extend his knowledge, and, if at all possible, he should take advantage of them. Such an opportunity is the occasion of a graduate taking his M.D. or M.S. degree. At last, the University of London has conceded the truth of the self-evident proposition that there are limits to the usefulness of examinations, and that the more foreign method of writing a thesis should take the place of the absurd plan of composing a commentary on a single case, and answering a few questions on half a dozen more. It would be a very great advantage if this thesis system were to lead to the general custom of a man taking up a piece of original work and thoroughly investigating some important point in physiology or pathology. The whole tenour of English science has always been towards the elucidation of new facts, and it is a great pity that the amount of energy that one sees enshrined in volumes like those of the Pathological Transactions should lead to nothing or next to nothing. There is scarcely one subject in the whole forty odd volumes which embodies the discovery of the causation or mode of action of any *materies morbi*. The remedy for this lies in making by means of original work at least one brick for the edifice of medical science. To take a most striking example of the importance of laboratory work as compared with bedside observations, I may quote from an article in *Nature* some time back. For centuries, we may say thousands of years, medical men have stared at patients dying of zymotic disease. Although the most ample clinical notes have been taken and hundreds and thousands of cases carefully observed, this process might have gone on for thousands of years to come, and we should have been as far off as ever from knowing what the real cause of such disease is had it not been for the laboratory labours of Pasteur and his followers in bacteriology. The sources of error and the want of limitation in clinical work are so countless and so complex that it is very difficult, even for the most extensively experienced, to make accurate deductions, whereas no one can take up some experimental work without obtaining facts of much interest and value. Every experimental result is a true fact; it is the interpretation which may be erroneous. The indiscriminating part of the public are apt to confuse these together, and in their haste (to put it mildly) they abuse science, instead of, as they should rather do, the observer, who has mistakenly understood what he has seen. Nothing is commoner than to see in the papers mud thus thrown at scientific investigation, and yet people might just as reasonably abuse the rapids of Niagara because some courageous idiot has got himself drowned in trying to swim down them. Let me therefore strongly urge you to gain your degree by clearing away one of our stumbling-blocks of ignorance. Success is

certain; for Science deals out all prizes and no blanks to anyone who honestly works for her.

Imagine, now, that we are ready to settle down in practice. Where are we to do it? It may seem impossible to choose any place where doctors do not already abound; so the first practical consideration is, What number of population is able to support a medical man? And this, I believe, is usually supposed to be 1200. Under these circumstances nothing would seem to be easier than in choosing any locality to find out the number of the population and of the doctors already there. But a factor of still greater importance is the question whether the population of that particular place is or is not on the increase. If it be increasing, then the certainty, other things being equal, of your success is assured. With a population that is stationary there is always the chance that some day there will come one mightier than yourself, who by his superior skill will attract your patients from you; and the exemplification, by their naturally selecting him, of the struggle for existence, would not be agreeable to you. Obviously where the field is unlimited this danger does not exist; hence, from every point of view, choose a place which is growing, and not standing still.

In making these remarks, I have assumed that you will elect to start by putting up a brass plate and waiting. There are two cases in which the population question is supposed to have little weight—(1) where a son steps into his father's place, and (2) where purchase of a practice or interest in one has been made. Referring to the first of these, I know many of my fellow-students who have verified the truth of the supposition, and have shown themselves not only fully able to uphold a previously gained reputation, but have elevated and extended it beyond its original limits. As regards the second case, however—viz., the much vexed question of purchase,—that is another matter altogether, and one which must be considered in various aspects before it can be criticised in a manner to be of any use to you. To buy a practice, or part of one, is a very serious thing. It means a final parting with capital on the part of those who are lucky enough to have it, which they otherwise would have used to keep themselves comfortably going until they should have become sufficiently well known in their new surroundings to make the brass plate attractive. Now, there are two chief ways in which it is supposed that immediate work can be secured by means of purchase. One is to buy a practice right out; the other is to obtain introduction as a partner into one already thoroughly well established by paying a part share. Of these two the latter is incomparably the safer, and of the cases which have come under my own observation I do not know one which has not proved a financial success—a fact which reflects, it seems to me, credit on both sides. It is far otherwise with the plan of purchasing a practice *in toto*. To judge by the facts known to me, that, with one small class of exceptions, is invariably a mistake, to put it as mildly as possible. The exceptional instance is where the small nucleus of a commencing practice in an increasing neighbourhood has been secured. That is well worth having to an energetic man, for it practically saves him a couple of years, and two years' estimated income of one who has started *de novo* would be a fair price, in most instances, for this special benefit. Purchase, on the other hand, of a practice of a moderate or long-standing history is unsatisfactory, and with the increase of the means whereby people travel more about the country, and are easily able, therefore, to consult whom they will, it must become still less advisable a thing to do. The public, moreover, are not so stereotyped nowadays that their health interests can be handed about as a matter of business between two indifferent individuals without their own consent; and it is not always possible, even if the vendor have the best intentions, to transfer cases to the new comer. My observation of the results of such an arrangement may have been unfortunate. I cannot say. All I know is that I have for several years made it a matter of interest to follow the results of purchase amongst my friends, and whenever it has been a case of buying the whole practice it has never seemed to succeed. Finally, never buy a practice without carefully determining what is the atmosphere in which you are going to live; in other words, what reputation your predecessor bears amongst his colleagues and patients. Taking everything into consideration, it would appear that, for private general practice, the best plan, if you have no family or partnership opening, is to put up a plate in a thriving and increasing neighbourhood, and to make your own way. That brings us, therefore, to the point of your having made a start; and now let us review what dangers and impediments tend to block a medical man's progress and mar his success.

I think it best to divide these under two headings—(*a*) professional, (*b*) social.

(*a*) *Professional Drawbacks.*—The first drawback which everyone experiences after he has been a short time in general practice is an uncomfortable suspicion that medical science and advancement are slipping along just the least bit faster than his own knowledge increases, and later on the constant cry is, "Oh, I have no time to read. I often cannot even find a moment to read the medical journals." Now, at the beginning this is certainly not so, and those who are starting work in or near a large city should make it part absolutely of their daily duty to attend special hospital and post-graduate courses. At this point let me digress for a moment. Post-graduate courses are but things newly sprung up among us, and things which I believe might be of much value to the medical practitioner. They took origin, or at least have developed, most completely in America, but they owed their initiation there, I strongly suspect, to the extreme shortness of the medical curriculum in most parts of that country. If a man were turned out a full-blown M.D. in two or three years, as he used to be in most States, it goes without saying that, being only partly trained, he was of necessity obliged to get the rest of his education somewhere else, and, as a matter of fact, the best men either came to Europe for that purpose or thronged the post-graduate schools. Now, that system was a very bad one. The proper function of a post-graduate course is not to fill up the gaps of an imperfect training; its only legitimate purpose is to assist the hard-working and harassed practitioner to keep himself abreast of the incessant progress and consequent change in medical science. Post-graduate lectures, therefore, should not consist of easy lessons on gout or pneumonia, or the methods in vogue of testing for albumen, all of which subjects should figure prominently in the ordinary education of a clinical clerk, but should be a concise and clear exposition of the most recent reliable investigations into the pathology and treatment of diseases, preferably the rarer ones. In thus recommending attendance at lectures &c., I sympathise with the very natural dread that if you are away from your house attending lectures you may be missing the call to some important case. This thought ought not to be allowed to act as a deterrent, for the ultimate gain far outbalances alight temporary losses, and, believe me, such losses are most rare. However, to revert to the difficulty which everyone feels in keeping up his knowledge, I cannot admit the justice of the plaint that there is no time to read the medical papers. There is one plan which makes it quite easy to do this, and that is simply to put aside what you may be going to do when the paper is delivered, or read it directly you have completed what you are actually doing. The numberless opportunities afforded during dressing, driving, &c., make this complaint a very hollow one. Recently the British Medical Association has done much to aid us in this respect by publishing in a very useful supplement to the journal translations and reviews of foreign papers on many important and interesting subjects, and with subscriptions to book clubs the difficulty that is complained of becomes, I think, a very small evil to conquer. There is no doubt, however, that it is unfortunately easy for a man to fall into a groove and to forget not merely the things he once knew, but also the way in which he acquired the knowledge which is, after all, his stock-in-trade. Thus I actually knew of a practitioner who seriously asked a friend of mine last year whether Pasteur had really discovered anything, and I have myself been equally seriously asked by a London consultant what experimental science had taught medicine. Of course, questions of this kind reveal an ignorance which is born of boundless forgetfulness, rather than lack of primary education. Upon this point especially it is astonishing to discover the blanks which some minds are as far as the source of their every-day knowledge is concerned. The pulse, for instance, is a fairly well known phenomenon, but if asked what causes it, everyone would doubtlessasay, "Of course the pulsation at the wrist is due to the movement of the blood in an artery caused by the action of the heart as a pump." But if it had not been for an experiment of Galen's that little fact would have remained for ever unknown unless some other experimental scientist had taken up the

matter, and we should have only had to guide us in disease the erroneous idea, which anatomy teaches, that the arteries contain air or little else. I would not, however, spend further time on a side issue of this sort but that the forgetfulness of some of our own profession should be used as a handle by the enemies of science and medical progress is so regrettable a fact that one feels obliged to warn you against falling into the same pit. But all these you will perhaps regard as very minor difficulties, and fear as much more serious such things as professional competition and ethical matters, which, while acute, may seem very formidable obstructions, not only barring your progress, but even suggesting failure Now, in the first place, as regards professional competition, have no fear of that whatever, if you can say to yourself, "I have done my best." In ninety-nine cases out of a hundred, a patient who has left you will come back to you, and acknowledge with regret not having followed your advice. Where, therefore, others may seem to have reaped where you have sown, never mind. If you have done your duty to the utmost, your reputation and probable success are as safe as ever. This brings us to the all-important question of the ethics and etiquette of the profession. The public is always ready to laugh at "doctors' etiquette." It does so, as usual, in ignorance, and in the very special ignorance that these same medical ethics have grown up from a loyal desire on the part of medical men to protect the best interests of their patients. The public does not recognise that the reason why the care of a patient is apparently hedged round with this or that formality is that the profession feels that every one of its members who undertakes the treatment of a case does so with a full sense of his responsibilities, and it is only just and equitable towards him to regard his assumption of that responsibility as a loyal one, and consequently to abstain from interference with his work save with his full consent and coöperation. This is a very simple and straightforward consideration, the reasonableness of which must strike all whom it especially concerns. The ethics of the profession have been admirably summarised by a committee of a branch of the British Medical Association. No one, I think, can read the kindly judgments and criticisms which the medical journals pass upon the difficulties and disputes submitted to them without feeling that in their columns we have a safe and good opinion upon whose advice we can rely, if plunged in some difficulty of the kind. If, therefore, the even tenour of your way be interrupted by some dispute with a brother practitioner upon a point of this nature, take the advice of the ethical correspondence column, and I believe your difficulty and worry will vanish speedily. Connected with ethical disputes in which mere professional ability is in discussion are others in which your honour may be involved. Such matters are as serious as the others are relatively trifling. It is not easy for you at the commencement of your career, and, above all, if you know little of the world, to be sure how you ought to act. It is so easy for others to advise compromise on the plausible grounds of the "good of the profession" &c. that you may readily listen to such suggestions, and the more so if you want to live and let live. But to do so is fatal. If the matter becomes at all public, as it must if it involves your honour, make no compromise whatever; but, with your facts orderly arranged, make a full statement of the matters in dispute, and as each attack is delivered, repel it as strongly, albeit as quietly, as possible. Life, after all, in these cases is usually a repetition of the playground; and you may rely upon it that if from witnessing your good nature the other boys get the idea that you may be kicked with impunity, your difficulties will rather accumulate than decrease.

(*b*) *Social Drawbacks*.—I come now to social drawbacks, and thereby I mean the troubles you may meet with in dealing with your patients, and above all their friends. I have already touched upon the chief points in which your success as dependent upon your relations with the laity is concerned. There are some others which may appear to you when struggling your hardest to be most serious, and, in fact, fatal, but which nevertheless you gradually learn by experience are to be survived, and that without special difficulty. I suppose that the worst of these is an unsuccessful case. You may have done your best; you may have made a mistake. In any case, the result is a failure, and as you stand by the bedside and watch slipping away a life you would give anything to save, you may believe that with it is also expiring, not only your reputation and your future, but the chance of meeting your obligations and responsibilities. I suppose nothing is more difficult to a professional man than to believe that such failures are otherwise than irrevocable blows. While not denying that they may retard slightly your progress, the mere fact that to err is human should console you provided that you have done your best, and to remind you that others have also failed and by steady work have obliterated the memory of it. The apparent force of such a difficulty rests upon the relationship between a medical man and his clients, which we speak of as his reputation. Perhaps a more real danger is one from which until recently no satisfactory release offered itself. I refer to the ease with which anyone whose livelihood depends so absolutely upon his good reputation as a doctor's does can be attacked by those vampires of the public who are known as blackmailers. I daresay that there are few practitioners who at one time or another in their career have not either been threatened or served with a legal process by some scoundrelly man or woman for an alleged malpraxis or worse treatment. This special form of attack upon you admits of but one method of repulsion, and however much it may appear better to you to try and "agree with thine adversary while he is in the way with thee," you must disregard any such fatal inclination, and return no answer but the address of your solicitor. The necessity for this course was every year evidenced by appeals in the journals for subscriptions to pay the expenses of Dr. So-and-so, who had been obliged to defend himself against some abominably false accusation, the mere publication of which could not fail to have done harm. A form of tyranny so vile is one to which doctors of all people, as genuine benefactors of humanity, should be the last to be exposed, and it is clearly the province of the profession as a whole, and not of the individual, to undertake the defence in such a case. For this purpose of recent years a Medical Defence Union has been started, and has already exercised most salutary and wholesome effects on this particular social drawback. One of your first duties on entering the profession should be to join this Union. If you should never become an object of attack yourself, a brother practitioner may be; and if you know, as is the case, that the prompt action of the Defence Union will most probably prevent his being exposed to even the obloquy of having to defend himself, you have the satisfaction of lending your aid to the best of all possible causes. So far I have dealt with things which might arise to hinder your progress, and I took the worst first, because to know what the difficulty is in anything is to already half abolish it, and because no one can hope to go through life without some acquaintance with these troublesome matters.

We may now turn to much more pleasant considerations. In the first place, when we compare, as contrasted with others, the openings which the medical profession offers, with its opportunities in civil practice, lunacy, Government work, the army, the navy, the Indian Medical Service, &c., its chances seem unequalled as a means of gaining a livelihood. Every man who honestly works is bound to succeed, and there is work for all. Not only that, but it is work of ever-increasing interest and variety. As physical science advances and becomes more exact, so precisely does our special branch of applied science. This constant improvement, this constant correction of error, instead of being a theme of congratulation, has for ages been a source of ridicule to a misguided people, who know not science or her methods. People laugh at doctors for changing their opinions, especially in the direction of treatment; they forget, or have never realised, that the cause of that change is the highest attribute of human reason—namely, the power of discovering what is wrong and the endeavour to replace it by something better. To them it is as if the treatment of disease was a haphazard sort of affair, and in which the determination of what should or should not be done in this or that or the other disease was a matter of chance or of what is falsely called experience. To us, however, who know the true aspect of the question, it presents itself in a totally different light. We see that our knowledge is daily increasing, is daily acquiring a more scientific basis, and therefore I would say to all, that as far as all your interests in merely living in this world are concerned, you have chosen the best possible means of gaining an honourable success. If you work you cannot fail.

There is one more side of the subject of which I should like to say a few words in conclusion. You have to remember that while a unit in a large profession, that pro-

fession is but one among various communities of men, and consequently in your future you must also think both of what you owe to your profession and science as well as to the community at large. The first duty of every one of us is, it seems to me, to join with his brethren, so that by union the profession can stand and act together. At the present moment the representation of the profession in the House of Commons is about ½ per cent. As for the House of Lords, which decides many questions of the utmost importance to sanitation and to general medicine, it is composed of many noblemen, a large share of lawyers, a few bishops and generals, and one poet, but no representative of our profession or of science. What can be more absurd or unreasonable? Even with all the unity and strength which the British Medical Association affords it is difficult to resist arbitrary Acts being placed on the Statute-book by statesmen who know about as much of the requirements of the profession as we should of the means of circumventing Russia or keeping France tolerably quiet for a week at a time. There is, however, another way in which we can gain strength from bodies outside our own, which we can obtain more and more exactly in proportion as we seek to elevate our profession by cultivating the scientific sides of it, and thus bringing it in touch with all other branches of science. A striking proof of the value of this union with other scientific men was recently given by the decision of the President of the Board of Trade in reference to the Bacteriological Institute, and I should therefore like to allude to it now. As you may know, it became necessary that the great central and National Bacteriological Institute, which is now being founded, should be registered, in order to guarantee that the fund raised could not be devoted to any other purpose. Sir Michael Hicks Beach refused to sanction the registration. Concerted action on the part of the profession, backed up and supported by the sympathetic efforts of all their branches of science, enabled us to overcome the difficulties before us, and to obtain the registration we demanded. It is incumbent, therefore, upon all of us to unite together, and, in spite of its defects, the best way to do this is, I believe, to join the British Medical Association. No human organisation was or is likely to be perfect, and the Association is no exception to the rule. But that it is of the greatest service to the profession none can doubt, and future reform will make it better than it is now. Joining it will bring you into line with and in touch with your fellow-practitioners. You will not feel that you are living only for yourself, but that the opportunity is before you of adding your weight to the furtherance of plans which should tend to the welfare and advancement of the profession, and of helping to resist burdens and attacks which will always be thrust upon us. Finally, let me once more congratulate you on entering a profession in which honest work is sure to succeed, and in which the actual work is always interesting and always advancing; and in congratulating you, let me thank you for the attention you have accorded these few remarks.

Abstracts
OF
INTRODUCTORY LECTURES ETC.
DELIVERED AT THE
MEDICAL SCHOOLS OF LONDON
AT THE
Opening of the Session 1891-92.

MIDDLESEX HOSPITAL.
INTRODUCTORY ADDRESS BY WM. DUNCAN, M.D., F.R.C.S.

AFTER offering a warm welcome to old friends and to those who had come for the first time, Dr. Duncan proceeded to address those present on the subject of Thoroughness. "I feel," he said, "that it is a privilege and an honour to have the pleasure of addressing you to-day in what is, and must be, for me a position of responsibility. For I conceive that my aim should be, if possible, to tell you something which will be useful to you in your future career both as students and as practitioners of medicine. You have chosen a profession which is an honourable one, one which will most certainly do you honour and amply reward you if you endeavour to follow in the footsteps of such men as Sir Charles Bell, Campbell de Morgan, Murchison, and others, whose names are an honour to our profession and to this hospital, where they studied and taught. In no profession is steady and continued work more essential to success, and I quite think in none is it more certain to receive its due reward. We cannot all have intellectual qualities such as the great men I have named possessed; but we can have the next best thing—namely, a determination to use what we have to the utmost of our powers. Nothing further is needed in the profession of medicine to ensure each of you a successful career. Remember that you can accomplish whatever you are determined to do.

'Animus homini, quicquid sibi imperat, obtinet.'

But at the same time this cannot be effected without hard work. As Horace so truly says:

'Nil sine magno vita labore, dedit mortalibus.'

Genius has been variously defined. It is said by one to be 'a great capacity for work'; Carlyle defines it as 'the infinite capacity for taking pains.' Neither of these definitions, however, seems to my mind to be quite sufficient. I believe the distinctive quality of genius is 'the possession of some mental quality or qualities in an unusual degree beyond the average powers of mankind, giving its possessor the capacity to do, without any trouble whatever, that which talent with all its infinite pains can never quite succeed in accomplishing.' Genius may or may not be joined to a capacity for earnest work, but so much has been done in the world by the hard workers, who have made good use of the new ideas and inventions of the men of genius, that they have often obtained most of the credit, and, perhaps, deserved it. Work to be thoroughly effective must be well directed and systematic, and this is the point to which I wish particularly to draw your attention. The first obstacle which usually confronts those seeking to enter the medical profession is the preliminary examination. All of you, doubtless, have passed a preliminary examination, but the question is have you passed the right one? The differences between the several examinations and examining bodies are not well known to the general public, and very little trouble is taken apparently to instruct them. The consequence is that some men pass a preliminary examination which does not entitle them to enter for a degree in medicine at the London University, and it is only after they have spent some time at their medical studies that they find out their mistake; then circumstances perhaps compel them to go on and be content with another qualification. Care should be taken to prevent this as far as possible by giving the fullest instructions to parents and teachers of intending candidates. Let me, then, earnestly advise all new students who have not passed the matriculation examination of the London University to do so without delay. A new era is now opening for the London medical student by the formation of the Albert University, and those of you who began your studies without matriculating are to be congratulated in that instead of spending the last two and most valuable years of your medical studies elsewhere in order to get the degree and title of Doctor of Medicine, you can now during your whole curriculum remain in London, which possesses the largest amount of material for clinical teaching in the world, and at the end of four or five years you can go forth as fully equipped as your fellows to compete in the keen struggle for existence which goes on in the medical, as in every other profession. Every student should possess a knowledge of biology, chemistry, and physics. The object of a course of study in medicine is not only to make you acquainted with a number of facts, but to train your minds to estimate accurately the relative values of these facts in their bearing on each individual case brought before you—in short, you have to learn the art of reasoning. The two things are essential—viz., the full knowledge of your work in all its details, and a mind properly trained to grasp the whole as well as see each part in logical order and position. No mere parrot learning of your work will effect this—system and method must go hand in hand with accumulation of facts, and the earlier in your work you realise this the better for you. Amongst other things the Greek and Latin, which are now undervalued by some, are capital aids to the training of the reasoning powers, and he is to be congratulated who has

learnt something of logic before commencing his medical work. What I wish now is to give you some hints as to the management of your work. The student having passed his preliminary examinations, is ready in the first winter session for the study of anatomy and physiology. These subjects constitute the solid foundation on which is built the study of medicine, and I cannot too strongly and earnestly advise you to master them thoroughly. It is a great help to have learnt some osteology before the beginning of the session; you must get this subject up perfectly, and before you begin to dissect a part learn the bones belonging to it most thoroughly. Until the first professional examination is over (or at all events until after the first year) you must carefully avoid going into the out-patient rooms or the wards, as you learn practically nothing and only get in the way of the senior students. Your proper place is the dissecting-room and the physiological laboratory. On the other hand, be assiduous, from the very beginning, in your attendance in the operating theatre, so that you may see as many operations as possible. With regard to lectures, my own opinion is that there are far too many given—Wait a moment, gentlemen, let me finish my sentence before you cheer,—I say there are far too many given unless you will (as I am sorry to say so few of you do) 'take full notes of them.' You can make your lectures invaluable to you, and it is not at all difficult to put down every fact stated by the lecturer. A little practice will enable you to do this with facility, and it is a capital training for writing examination papers. These notes are the groundwork of the subject lectured upon; they contain in a short space nearly everything you want to know, and you can read them over and over again many times, in a shorter period than it would take to read a book on the same subject. Besides this, they keep your attention fixed much better than reading a book, as the words recall what you saw as well as heard at the lecture. But you must supplement your lectures and notes by reading books. My plan was to make an abstract of each book I read, written in ink in a good-sized note-book; and it is surprising how quickly you can do this, and how small a space it takes up, especially if you arrange the facts in order under their proper headings, leaving a margin at the side for this purpose. When once you have made an abstract of a book in this way, if properly done, you need never look at the book again, or only for reference. You can read your abstract over in one-tenth or one-twentieth of the time required for reading the book. Besides, you have read the book in a way you could never have otherwise read it. To make a careful abstract or summary, you must read every word and weigh it well, omitting nothing of importance. It is also an excellent training in the power of condensing expressions, a most valuable acquisition, as you will find, when you come to write an examination paper. Reading, too, is much more interesting when done in this way. After a time the process of epitomising becomes absolutely fascinating. An orderly and methodical habit of writing will teach you to think in a similar fashion, which is one of the qualities most needed in our profession. It is a capital plan to supplement your notes of lectures from books; for example, in notes of lectures on medicine, when you read some work on the same subject, have your lecture notes before you, and add any facts mentioned in the book which you do not happen to have down in your notes. I usually kept one side of the note-book for this purpose, and interpolated matter from several sources on the opposite page. This may often take the place of making a complete abstract of a book, and in one note-book you have the contents, not only of a course of lectures, but also of several works on the same subject. I dwell on these tedious details, gentlemen, because I feel it to be of the first importance to you to get into a right method of working. By doing so you will find your work an increasing pleasure, as it develops in you more and more a command over the knowledge you have gained. Without it you will have a perpetual struggle to learn a multitude of uninteresting details presented confusedly to your mind, and if learnt soon forgotten. With it you will have had a mental training far more important for your future career than any book knowledge—the right method of thinking and observing. I cannot too strongly warn you against what is known as 'cramming,' by so-called 'Aids' and similar imaginary short cuts to knowledge. You will never make yourselves capable physicians or surgeons in that way, I can assure you, and if only viewed from the low standpoint of enabling you to pass an examination you will find them a delusion and a snare. Speaking as an examiner, I know that examinations tend more and more in the direction of ascertaining how you have been trained, and not simply to find out how many things you have learnt; especially is this the case in the advanced stages of your course of study, and rightly so if they are to determine your fitness to practise a learned, noble, and responsible profession. If anatomy and physiology are the groundwork and basis of medicine, pathology is its chief substance and support; as dissections and practical physiology are to the junior student, so are pathology and morbid anatomy to the senior. Every hour spent on these subjects will be invaluable to you, not only now, but all your lives. Think of the immense strides that have been made in this department of medicine within the last few years. What new facts have been brought to light by the study of bacteriology and what possibilities of magnificent discoveries still await deeper researches into this subject? Think of the rewards and never-dying fame which await the man who shall discover the etiology and cure of those scourges of the human race—consumption and cancer,—and let this thought urge you on to try and find out the hidden secrets of these diseases. In the hospital wards and out-patient rooms you will have opportunity in clinical work to make use of the facts you learn in your lectures and text-books. In examining patients you must use the same method and order which I have described to you. This will teach you better than anything else how to observe, and also to be thorough in your examination of patients. Most of the mistakes made in diagnosis come from inaccurate and imperfect examination. The most fatal mistake of all is to let the habit grow upon you of carelessness in your work. It is a greater bar to success in your career than any other. The best way to avoid it is from the first to be methodical. Have a clear, well-defined rule to go by, and follow it out to the end. You must have a plan in your daily work as in your whole life, if you are to make a mark in anything. Aimlessness cannot succeed. Devote a certain number of hours daily to study. Apportion definite hours to each subject, and adhere as closely as possible to your scheme. Those of you who can study in the early morning will find it of the greatest value: for at that time your brain is unwearied from the day's work, and there is nothing to distract your attention. All my reading as a student was done between five and nine o'clock in the morning. The following lines are as true as they are appropriate:—

> 'Unless you light your lamp ere dawn, and read
> Some wholesome book that high resolves may breed,
> You'll find your sleep go from you, and will toss
> Upon your pillow, envious, lovesick, cross.'

Students often make the great mistake of leaving some branches of their work almost neglected, and begin practice with little or no practical knowledge of special departments. Some, perhaps, hope to get opportunity in their daily work for becoming practically acquainted with them after leaving the hospital. Having often seen the ill effects of this, let me most earnestly entreat you to avoid a course fraught with so much danger to your patients as well as anxiety and discomfort to yourselves. I said earlier in my address, speaking more especially to the juniors, that attendance on a course of lectures and careful notes of the lectures gave a sense of security and knowledge of the subject not attainable by mere reading. I say now even more emphatically to the seniors, that attendance in the special departments of your professional work and a thoroughly practical acquaintance with them will give a sense of security to you when you enter practice which cannot possibly be obtained by mere theoretical knowledge. It will give you a confidence in yourselves which will very rightly inspire your patients with confidence in you. It will save you years of toilsome and anxious striving to acquire a facility which a few months' work here would have ensured you. Speaking for my own special department—obstetric medicine and the diseases peculiar to women,—I feel that it is perhaps the most important of all, for it is probably the first in which your knowledge will be tested after you have started in practice; and the happiness of many households will depend on how you have, during your hospital career, taken advantage of the opportunities afforded you of becoming well acquainted with the subject. Ours is pre-eminently a practical as well as a rational profession; and as order and logical method are the proper training for the mental faculties, so practice and manipulation are the

means for acquiring facility and dexterity in the use of those instruments of precision which science has placed in our hands. My plea is for method and thoroughness in your work. I am anxious, gentlemen, to see you are full men, ready and well equipped for the honourable calling before you. The maintenance of health is your work, and to do it effectively you must be healthy yourselves, physically as well as mentally. Do not, therefore, neglect the training of your muscles during your course of study. The present is a stirring time in the work of medicine. The progress which has been made in all its branches during the past few years is enormous, and there is promise of yet greater things. New scientific discoveries have revolutionised the theoretical part, and with the change in theory, practice varies also. Some years ago an eminent surgeon, speaking of his own branch of the profession, stated that a period had been reached approaching finality. Already since this statement was made new fields have been opened in surgery, and there are plenty left for you, gentlemen. Time will not permit me to do more than touch upon some of the many recent advances in medicine and surgery. The greatest strides have been made in surgery. Who, a few years back, would have dared to attempt the removal of a tumour of the brain? This has now been successfully accomplished several times; but, I would ask, is not much of the credit due to Ferrier, for his invaluable researches into the localisation of the cerebral functions, as a result of which it is now possible to accurately define the position of the tumour before operating? Should it not teach a lesson to those opponents of scientific research (the so-called anti-vivisectionists), who dare to assert that those who engage in experimental investigation do so either for amusement or to gratify personal ambition, rather than from a desire to do something for the good of suffering humanity? Another operation which gives hopes of great results is that of craniectomy, in which a strip of bone is removed from the cranium and the development of the brain (which was prevented by premature ossification of the bones) allowed to go on. It is, however, in the surgery of the abdomen that the greatest advances have taken place. Every organ in it has come under the surgeon's knife. The spleen has been removed, the gall-bladder is opened and gall-stones removed. When cancer attacks a portion of the intestine, the affected part (even to the extent of several inches) is cut away, and the continuity of the bowel successfully restored by carefully suturing together the cut ends. When the intestine or bladder is ruptured from injury, instead of the almost certain death which used to occur in those cases, now the abdomen is at once opened, the rent discovered and sewn up with every prospect of success. The kidney, if it be extensively diseased, can be, and often is, successfully removed, or, if it contain calculi, is cut down upon, laid open, the stones removed, and the organ again made healthy. Much advance has been made in the treatment of diseases of the female pelvic organs. Ovariotomy, which was so condemned fifty years ago, is now daily performed with but comparatively little risk to the patient. The Fallopian tubes, when diseased and containing fluid, can be diagnosed, and by their removal the patient's sufferings cured. Again, when pregnancy takes place and continues to develop in one or other tube, it usually ends, as you are aware, in rupture of the tube after a few weeks; this rupture formerly often terminated in fatal internal hæmorrhage, but now the condition is either diagnosed and removed by operation before rupture or when rupture occurs, the abdomen is boldly opened, the bleeding stopped, and the diseased parts removed, with often the most gratifying results. The lives of many mothers and children have been saved by the improved method of performing the Cæsarean section, and I trust the day is not far distant when the recognised treatment of every pregnant woman who is suffering with a deformed pelvis will be, not to destroy the child as at present, but to save both mother and child by means of the Cæsarean section. Porro's operation, in which the child is saved but the uterus removed, is, in some cases, a valuable modification of the Cæsarean section. The comparatively little risk there now is in opening the abdomen and the far greater success which attends all operations are undoubtedly due in great measure to one man—Sir Joseph Lister,—whose antiseptic method has impressed on medical men in all parts of the world how essential to success in operating is the most rigid attention to every detail which shall ensure strict cleanliness. Antiseptics and perfect cleanliness are synonymous terms. New procedures in medicine or surgery sometimes give rise to much opposition, and certain of the operations I have named are no exceptions. But, gentlemen, criticism of new measures, provided it be healthy and honest, is good. At the same time, you should disregard opposition and criticism as long as you feel you are animated solely by the conscientious desire to relieve suffering and to cure your patients. In medicine, the subject which has excited most attention of late years has been Koch's treatment of tuberculosis, and although the remedy falls far short of doing what was expected by many, still it probably will prove of some use, and at all events it makes one think that research is taking the right direction. Again, Pasteur's treatment of hydrophobia proves the immense importance of the study of bacteriology; indeed, I would ask, Ought not there to be a national institute for the thorough investigation of this subject, rather than that it be left altogether to private enterprise? The only other disease I shall mention, which used formerly to be very prevalent and cause frightful mortality amongst lying-in women, but which, since its origin has been proved to be due to the introduction of septic germs from without, has become comparatively rare, is what is called puerperal or childbed fever. The absolute necessity for the carrying out of the strictest antiseptic rules by doctors and nurses in attendance on lying-in women is well seen from some statistics given by Dr. Priestley in an able paper read before the Congress of Hygiene last August. In it he shows that before the introduction of antiseptics the mortality in maternity hospitals was over 34 per 1000, whereas since their introduction (in the last ten years) the death-rate fell to 5 per 1000, or only one death in every two hundred labours. In other words, as Dr. Priestley says, 3011 lives of mothers were saved as the result of new and purely scientific methods of treatment. Surely, no more striking triumph of the value of preventive medicine is needed! I have indicated to the best of my ability some of the means whereby you may study to advantage, hoping to enable you to work upon a sure foundation. It is for you yourselves to raise the edifice by steady, honest, and enthusiastic work. Your studies are by no means completed when your curriculum is at an end. There is no standing still in a calling where advance is perpetual without falling out of the ranks. Nothing in your work must be deemed trivial or unimportant, no symptom or complaint treated as of no moment if it causes discomfort to your patient. Young medical men fresh from hospital work, where the cases under treatment are mostly of a serious kind, are apt to find much of the ordinary work of general practice trivial and wearisome. They must, however, remember that though trivial to them, slight ailments may and do cause much distress, and it is as much the doctor's duty to relieve distress, mental or bodily, as to treat grave cases of illness. The words of one of our greatest poets, applied to another art than that of healing, might fitly be used to it, viz:—

> 'High is our calling, friend! The Doctor's art
> Demands the service of a mind and heart,
> Though sensitive, yet in their weakest part
> Heroically fashioned.'

Give every case that comes before you, small or great, your earnest consideration, and having thereby gained the confidence of your patient you will have gone a long way towards relieving him. Aim high, gentlemen; remember always in all your actions to be worthy of your profession, keeping ever to the straight path of rectitude and honour. It is within the power of each one of you to make a mark for himself, however many and great may appear the obstacles in the way. But it can only be done by a steady application to work—well-regulated, methodical, purposive work—during the years of your curriculum. It need not be excessive; it ought not to interfere with your proper times for exercise and recreation. Bring to your work a due sense of its importance. Remember that you are striving to fit yourselves for dealing with the greatest problem of all—the problem of life. Whatever difficulties and disappointments may meet you in your life work, whatever the hardships and trials of a doctor's life, you will have much to recompense you in the knowledge that your work is at any rate one useful to mankind, and if rightly so owed ennobling to yourselves. In bringing this address to a close, I cannot do better than quote to you some further lines from the same poet, who sums up what should be the aim, as well as the spirit, of our lives as follows:—

> 'Enough, if something from our hands has power
> To live and act and serve the future hour;
> And if, as toward the silent tomb we go
> Through love, through hope and faith's transcendent dower,
> We feel that we are greater than we know.'"

ST. MARY'S HOSPITAL.

ADDRESS BY HENRY JULER, F.R.C.S.

AFTER offering a hearty welcome to the students in the name of his colleagues and himself, Mr. Juler said that, were it only to the students that he was called upon to speak, his remarks would be brief indeed. For the sake, however, of those who were just entering their medical career it was thought desirable that a few words of caution and advice should be given as they stood upon the threshold of the temple of medicine, in order that they might be reminded of their high calling, and of all that was needed to constitute medical character, and to enable them to do efficient medical work. He commenced by congratulating them upon the object of their choice; in his opinion, the profession they had chosen was much to be desired above all others. In no other learned profession could there be so much freedom of thought, liberty of action, power of doing good to others, and at the same time such certainty of gaining at least a competency for one's labour. Any man who had the ability, and determined to aspire to high honours in medicine, could be assured that nothing but the lack of those qualities could prevent the realisation of his desires. Social position, scientific eminence, professional distinction, and such wealth as usually falls to the lot of successful medical men would all come to him if he would study diligently, observe closely, live righteously, and wait patiently for results. On the other hand, the profession of medicine was no bed of roses, and they would do well to realise that fact, either now or before they had passed their final examinations. To the end of their career each one of them was bound to read, mark, learn, and inwardly digest all that was known of the work in hand; and in these days of rapid strides in scientific discovery they must be constantly on the alert, for medicine was based upon the natural sciences, which were ever moving onwards. So that a man who did not keep himself in touch with all discoveries bearing upon his work was allowing himself to drift backwards in such a way that he could no longer do his duty by the patients coming under his care. The successful pursuit of medicine required constant energy, perseverance, and enthusiasm, and they would do well to bear these facts in mind before finally deciding to embark on the medical life. An idle and luxurious man has no place in any corner of the profession, and anyone embracing medicine as a mere money-making concern was cautioned that by so doing he would only meet with bitter disappointment, and would know nothing of the happiness of a true physician; with such a motive he had better turn his attention to those channels where pecuniary gain constituted the express object of those who enter them. The path to success, if followed with a fixed purpose and steady determination, was sure to lead them to high honours and gratifying rewards, but would necessarily be beset with many obstacles, not only before, but after their final examinations, and most of all within a few years after that period when they would be trying to establish a practice and a good reputation. He reminded them also that many men entered the ranks who were disqualified from ever attaining to any position of eminence, owing to defective mental and bodily qualities, and that such persons would do far better to choose some other vocation, where a good personal presence was of less importance. He then referred to certain qualities which were essential to the success of a medical student, placing in the first rank a good constitution, combined with healthy habits of life. Athletic sports were strongly recommended during the student-life as tending to promote good health, manly and sociable habits, and a knowledge of human nature, such as would help him in after life. Reverses would certainly come to those who aspired to the highest honours, but they were advised to use these as stepping-stones to renewed efforts. Previous education and training, especially in classics, mathematics, English, French, and German, were of great assistance, but in addition to these a good practical knowledge of biology, chemistry, and physics was most essential. Those who did not possess this knowledge were advised to lose no time in obtaining it, for without such there could be no satisfactory progress. Great importance was laid upon the study of physiology; not only microscopic work, but practical laboratory work was strongly urged. The four years prescribed for the study of medicine were insufficient, although by careful manipulation of time the examinations might be passed at the end of that period; then was really the time for a new departure in which the more thorough cultivation of the knowledge of medicine could be carried out. Hospital and other appointments, where the course of disease could be followed through all its phases, should now be taken, and they should be careful not to leave the atmosphere of work until such appointments had been held. In conclusion, Mr. Juler congratulated them on having entered at St. Mary's Hospital during a period when the medical school was in so prosperous a condition, and when it was purposed to devote the proposed new buildings in Praed-street to the development of greater efficiency and facilities in the way of teaching of the various specialties.

WESTMINSTER HOSPITAL.

ADDRESS BY WALTER G. SPENCER, M.S., M.B., F.R.C.S.

MR. SPENCER commenced with a short account of the history of medicine. He then said: "Let us now consider some of the subjects which, it is generally conceded, ought to be within the grasp of every member of the profession. Latin and Greek were formerly a necessity to every well-educated physician, when medicine depended upon authority, and the treatment of a case upon quotations from writings in those languages. They are now termed dead, killed by the aid of schoolmasters, who have persisted in teaching them from the wrong end—viz., from the grammar. After struggling through grammar a boy has to take up prose composition, so that the majority are utterly wearied and choked off before ever they arrive at the essential stage of being able to read a Latin or Greek author. What an extraordinary amount of time is spent with only very slight result. It is proposed to substitute French and German, but many masters attempt to insert the old leaven by commencing with the grammar, and with the same result, that years are spent without boys being able to converse or to read a simple book. Did grammar, then, exist before language? How do children learn their own? If a man wishes to learn any foreign language, will he not read through a book in that tongue along with its English translation? Will he not learn to speak from one conversant with the language, and make much progress before ever he troubles himself about the finishing touches of grammar? French and German differ widely in their usefulness. Our own language can only be improved by reading the best French authors, which lose their most valuable characteristics in a translation; and besides, there is the use of French as a conversational medium, and the interest of good novels. In German there is nothing which cannot be as well expressed in a translation, and an extensive reading of German, especially of scientific works, has a tendency to injure our English, as may be seen in many medical writings of to-day. But Germany is full of living encyclopædias. Taking any subject, you may be quite sure that within the last year or two some book has been written in that language, which contains almost all that can be said, as well as a list of previous writers from whom information has been collected. School is not the place for any extensive study of science. The so-called science of common things, taught with plenty of illustration and demonstration, is sure to do good by leading boys to develop their powers of observation. But even among these small efforts some are wrong-headed in the extreme. For instance, a master will propose to teach elementary comparative anatomy and physiology, and will start with the primer written by Professor Foster. In spite of the statement at the commencement that it is impossible to begin this study without the organs of a rabbit or the heart of a sheep, the boys are made to learn page after page simply by rote. I know a school where Gill's Chemistry had to be learnt through without any experiments whatever. It is proposed to extend the compulsory medical curriculum to five years. The first of these should be occupied by scientific subjects (zoology and botany, chemistry and physics), as is the case now at the universities. The study of botany has undergone many changes since the time when the physician had to gather and prepare his own drugs. We have in the practical botany of to-day a course most suitable for obtaining an acquaintance with microscopic objects, and for commencing the study of vital processes. The study of the anatomy of creatures simpler in their structure is the proper way of approaching the difficulties of human anatomy. At the present time

non-university men commence a scientific education with lectures on the circulation and human bones, and many take six months before they begin to grasp the meaning of the words which fall on their unaccustomed ears, and to accommodate themselves to the new methods of learning, whilst it takes them about half the course of histology to see objects clearly under the microscope. Of equal or of more urgent importance is a preliminary knowledge not only of inorganic but also of organic chemistry. Now, a non-university student has to learn about the chemical composition of the blood and the changes occurring along with coagulation within six months of starting science. In the absence of any knowledge of organic chemistry, physiological chemistry becomes simply a question of committing certain words to memory. But beyond this there are the problems of pathological chemistry. It is from chemistry that medicine looks for its future, but what share can a man take in that advance, who has not as a student gained even the elements of the subject? I shall hope to see one change in future examinations—viz., a depreciation in the relative value of the written examination. Now the weaker men must cram or be crammed. A teacher cannot keep such at their practical work at least within three months of an examination. An extension of the examination in practical physiology should not be stopped by the question of expense. If limited to the recognition of histological preparations under the microscope, the student will buy the specimens at a shop. Courses of practical physiology have been proposed, but how is a teacher to make a student go thoroughly through such a course if he is not to be tested at the examination? How much more important to be able to estimate the amount of nitrogen in the excreta, to use the ophthalmoscope, or to stain the tubercle bacillus than to commit to an ephemeral memory condensed sentences and tables of all sorts! A first year employed in preliminary science allows sufficient time in the next year and a half for a good acquaintance with human anatomy and physiology. But during this period relief ought to be given by a reorganisation of the subject of materia medica. The chemical and botanical part should be learnt in the preliminary scientific year, the physiological action of drugs is a side-light upon physiology, and should be taken with that subject. Therapeutics is a final subject only, and not for those who have never been near a sick bed. Materia medica proper is part of a practical course in pharmacy which should fit a man to dispense medicine: to learn less is a waste of time; to learn it at all is a question for decision after qualification, in case it be required by the individual in his practice. The final examination should deal with general principles and common diseases. Therefore some knowledge of forensic medicine, fevers, insanity, and hygiene should be required, whilst rare medical diseases and large surgical operations should be omitted. Common diseases include those of special organs, but imply no particular acquaintance with any so-called speciality. After all, the qualifying examination is a minimal one, to attempt to make it inclusive is absurd. The important University question I must leave to Sir George Young. I cannot but regret that a majority of my fellow graduates prevented the formation of a Pass Examination in the present University. It was curious to note how some, whom one had supposed to be Radicals and Democrats, were urgent supporters of privilege, and voted for the transference of power from a department of the Government to a private body. However, let the future Pass Examination in the new University be readily accepted, let M.D. be given after the examination at the end of the fifth year, and let M.D. London stand for the degree of both Universities. The Pass and Honours Examination can always be distinguished when necessary, as at Oxford and Cambridge."

LONDON SCHOOL OF MEDICINE FOR WOMEN.

ABSTRACT OF THE ADDRESS BY MRS. DOWSON.

AMIEL, in his Journal, says that the principal grievance he has against the doctors is their neglect of the real problem before them, this problem being "the seizing of the unity of the individual." The charge is serious, but is certainly true of some of us, men and women alike, and it is likely to remain true unless we recognise that an essential part of our training lies outside our purely professional curriculum. The object of our training should be that we may see a patient, not as a patchwork of signs and symptoms, made after a common pattern, but as a human being, an organic whole without duplicate, of which no part can be understood or treated except with due regard for the interdependence of all parts, and the relation of the whole to surrounding things. This means that we must have some acquaintance with the main principles and generalisations of the special sciences, and with the outcome of philosophical thinking. It means, too, that we must be within, and not outside, the current of thought generally. Never were the lines of convergence in the different sciences so plainly marked as at present, and never was it so plainly necessary to know something of everything in order to know much of something. But the very fact of this convergence makes it possible for the student to attain a sound knowledge of what is necessary without neglecting purely professional study and practice. There need be no superficiality, for this does not mean a smattering—it is the right way for the student to recognise practically the fundamental oneness of knowledge, and its import for herself and her proper work. She should make up her mind to know, for instance, in each of the sciences, not the small details of either matter or method, not all the steps by which its present position has been reached, still less some few of those steps detached from the rest, but what, in relation to the problems of human life and well-being, are the results attained, and what, in principle, is the method through which they have been established. And it is the duty of everyone "to make life as full a realisation as possible of human capacities," a duty which does not cease for the student, but is rather emphasised when she begins to train herself for a form of service which in its scope and significance is of the highest. For her to become a *mere* physician or a *mere* surgeon, is to deprive herself and her patients of a part of her privilege of service neither can afford to lose. Among other benefits arising out of the possession of general culture is a mental outlook wide enough to enable us to see fancies of the day and hour in their right proportion to other things, and to keep us from taking up fads. And one of the evils fostered by a narrowly technical training is professional bigotry. We should bear in mind that the professional dictum of the moment may be reversed as it has often been reversed before, and that the professional atmosphere sometimes partakes of the nature of fog. Culture, scientific and general, opens the mind to a source of refreshment and strength, to an interest and a stimulus which make us to do our professional work more easily and more intelligently, and enable us to bring to bear upon it the illuminating power of a comprehensive knowledge. We can know nothing rightly if we see it as an isolated fragment, we can make no fact truly ours unless we have assimilated, or are assimilating, others by the side of which it may be placed. Moreover, we can never feel the right sort of intellectual confidence, the right self-respect of understanding, unless we have at least an intelligent appreciation of the bearing upon our own work of work that is not ours. If we ignore these things we make it possible for thinking men to say, as Amiel did of doctors generally, that we neglect the real problem before us, the truth being that we have put out of our reach the power of seeing what that problem really is. The best students apparently do not feel tempted to an exclusive devotion to purely technical work; their minds are open in every direction. And we must endeavour, here as ever, to follow the best, that we may fit ourselves, so far as may be, for seeing our patients as they really are, unique human beings, having a physical aspect and a psychical aspect, and standing in a relation affecting them in both aspects and in every part, with a universe of men and things.

NEW METHOD OF REMOVING FOREIGN BODIES FROM THE EAR.

BY JOHN WARD COUSINS, M.D. LOND., F.R.C.S.,
SENIOR SURGEON TO THE ROYAL PORTSMOUTH HOSPITAL, AND THE PORTSMOUTH AND SOUTH HANTS EYE AND EAR INFIRMARY.

FOREIGN bodies of many kinds get lodged in the external meatus, and these accidents occur very frequently in young children during their play. In a large proportion of cases the real danger is caused by the interference of ignorant persons, and these accidents become serious, not from the mere presence of the foreign substance, but by the unskilful efforts which are made to extract it from the passage.

Nature of Foreign Bodies removed from the Meatus.—Beads, peas, stones of fruit, pebbles, shells, and pieces of slate pencil are some of the most common substances met with in practice. Amongst the occasional bodies lodged in the auditory canal we must include larvæ and mature insects. Small fish have also entered the meatus during bathing.[1] I have seen several cases in which insects have been unexpectedly dislodged from the external meatus. Some years since a young lady was brought to me by her father, suffering intense distress from the fluttering of a tiny moth which had become fixed in the cerumen, close to the membrana tympani.

Bodies sometimes impacted for many years.—There are cases on record in which foreign substances have been retained in the ear for many years. Professor Darling of New York mentions a case in which a pea was lodged in the ear for thirty years. Two years ago I removed a cherry-stone from the ear of a woman, which had been allowed to remain there for seventeen years. It was impacted in the meatus, near the membrana tympani, but not actually in contact with it. The hearing power was somewhat impaired.

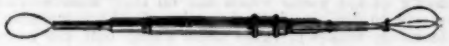
Extraction of Foreign Bodies.—The vast majority of these accidents may be brought to a successful issue by the simple use of the syringe and warm water. Fortunately other methods are seldom necessary. The treatment should be carried out by a trained nurse, and repeated several times during the day. When difficulty occurs in young children, the surgeon ought to make an effort himself to remove the substance under an anæsthetic. An assistant should hold the head well to the side, and at the same time draw the auricle upwards and backwards, so as to straighten out the canal. In this way the water gets behind the foreign body, and it is soon ejected in the stream.

The Agglutinative Method.—I have never tried this treatment myself, but it has often been practised with success. It consists in fixing a brush or piece of wood to the impacted body by means of glue or cobbler's wax, and retaining it in position until firm adhesion has taken place. The substance can then be extracted very easily by careful traction.

Value of Instruments.—Except under special circumstances, aural surgeons are unanimous in condemning the hasty recourse to instrumental assistance. Mr. George Field says instruments are dangerous weapons, and are seldom necessary. In some cases, operations undertaken to extract foreign bodies from the external meatus have been followed by distressing results. Pieces of glass and metal have been pushed down to the bottom of the canal and then through the membrane into the tympanum and Eustachian tube. It must, however, be admitted that cases do occur in which the substance is so firmly impacted in the meatus that extraction is impossible even by the most diligent and skilful application of the syringe. The question then arises, Shall we allow the foreign body to remain in the ear, or make a judicious effort to remove it? The decision must in every case be a matter for earnest consideration. If the substance is very firmly lodged in the external meatus, and is causing pain and tenderness accompanied with chronic inflammatory swelling and discharge, I always decide to operate at once. On several occasions my efforts have been hastened by the anxiety of parents and the fretfulness of the children produced by the persistent use of the syringe. Cases may sometimes fall into our hands in which acute inflammatory changes and tumefaction of the canal have been excited by rough and unsuccessful instrumental treatment. Under these circumstances it is certainly right to defer any interference until these symptoms have been reduced by fomentations and deodorising and soothing remedies.

Instruments for the Removal of Foreign Bodies.—All kinds of tools have been employed to assist extraction, including single hooks, screw hooks, with little prongs attached to them, bent probes, pins, wire loops, drills, and forceps of many shapes. I regard the vast majority of such instruments as dangerous weapons. Occasionally a small body, such as a pea or peppercorn, may be gently lifted up by a delicate little hook from the bottom of the meatus, and then ejected from the passage by a stream of warm water.

New Aural Snare.—The instrument which I have used with great success in several very urgent cases is represented in the engraving. It consists of two very delicate loops of wire fixed side by side in a metal stem, and these are so fine that when introduced along the meatal wall they readily slip over the surface of a foreign body. The loops are made in various sizes, and admit of alteration in shape, so that they can be adapted to the varying capacity of the



external ear. The snare is especially useful for the extraction of hard and round substances, such as small stones, beads, and peas.

Method of performing the Operation.—It is my plan first of all to examine the organ in a good light, and settle the question as to the presence of a foreign body in the canal. I then request the parents, if possible, to procure a corresponding body for my examination. The little patient is then placed under the influence of an anæsthetic, and the auricle is firmly drawn upwards and backwards by an assistant. The loops are now introduced and placed in contact with the substance, and then by gentle rotation and pressure they can be readily made to slip over its surface. The sliding collar is now projected to secure it, and extraction carefully practised in the right direction. In cases of severe impaction the loops may sometimes slip, so that they have to be reapplied, and another effort performed with greater care and caution. During the extraction smart hæmorrhage may take place from the meatal wall, but this is of no importance, for it even facilitates the removal of the substance by reducing the tumefaction of the passage. In cases in which the foreign body is of irregular shape I have found the fine single wire loop, which is attached to the other end of the instrument, of very considerable assistance. The extraction of any substance is always much assisted by filling the meatus with warm oil, and when the offending substance is lodged in the cartilaginous portion of the canal, its ejection can often be promoted by pressure with the fingers around the tragus and gentle manipulation of the auricle. The snare has been very neatly manufactured for me by Messrs. Maw, Son, and Thompson, of London. I have lately used it successfully in several cases for the removal of foreign bodies from the nasal passages.

Southsea.

[1] St. Roosa, Diseases of the Ear, p. 182.

A CASE OF

CARCINOMA OF THE BRAIN, SECONDARY TO THAT OF THE BREAST.

BY CECIL F. BEADLES, M.R.C.S., L.R.C.P.,
HOUSE-SURGEON TO THE CANCER HOSPITAL.

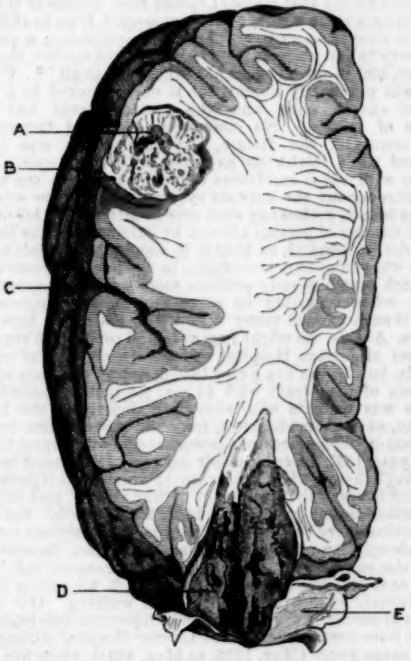
FOR permission to publish the notes of this case I am indebted to the kindness of Dr. Snow, under whose care the patient has been during the last five years.

E. D——, a female aged forty-one, widow with two children, with no history of cancer in the family, was admitted into the Cancer Hospital on Jan. 16th, 1891, with the following past history. On June 11th, 1887, the right breast was amputated for scirrhus, the tumour being the size of a hen's egg, situated in the upper part of the breast; it was hard, freely movable, and not adherent to the skin, and was then of two months' duration. No glands could be felt in the axilla; it was, however, cleared at the operation, and there were found "no glands appreciably enlarged." On May 1st, 1888, a recurrent nodule the size of a walnut was removed, which was situated along the muscular tissue at the edge of the scapula. The axillary vein was wounded. On Oct. 30th, 1888, a scirrhous nodule the size of a walnut, with a large portion of adherent pectoral muscle, was excised. On Aug. 23rd, 1890, two small glands were removed from the root of the neck, at some distance above the clavicle. They were freely movable, and had been noticed about two weeks; microscopically they were shown to contain carcinoma. The wound did not drain well, and was some time in healing. The patient was discharged on Oct. 6th, at which time she had occasional slight headache, which was not sufficient to call for treatment.

Present Condition.—Patient has suffered from headache, more or less, from the time she last left the hospital; it occurs at frequent intervals, and has been far worse during the last eight weeks. She now has severe headache, coming on at

night; it is absent during the daytime, and is referred to the vertex and frontal regions. She has no vomiting, but complains of weak eyes. The patient is very dull and forgetful, and sits about without speaking, showing a great contrast to the bright character when last in the hospital, but she is capable of giving a good account of herself. There is a hard enlarged gland felt above the right clavicle, below the seat of the old operation. This she has noticed about three weeks; beyond this there appears no return of the growth. Heart and lungs apparently healthy. Urine: sp. gr. 1012; no albumen or sugar present.—Jan. 22nd: In the evening the patient had an attack of vomiting, and went to bed.—25th: The patient still complaining of great headache and inability to sleep at night. She is put on a water-bed. An attempt was made to examine her eyes, but this was found exceedingly difficult. She had to be held up in bed, and her attention could not be directed to any particular object, but there appeared to be slight optic neuritis on the right side.—Feb. 4th: The patient is in a very drowsy condition. She sleeps both day and night, and takes little notice of anything or anybody. There is general weakness, most marked in the legs, but not complete loss of power. There is incontinence of urine and fæces.—March 6th: Much difficulty found in administering food, very little of which is taken. A bedsore has appeared over the sacrum, notwithstanding great care to prevent such. There is paresis of the right side of the body. Tongue furred.—10th: The left pupil is slightly larger than the right. The stupor is less and the tongue less coated.—19th: The left pupil is decidedly larger than the right. There is some conjunctivitis of the right eye.—April 3rd: Both pupils are equal and contracted. Continuous sleep. There is now general paralysis, with rigidity of arms. The paralysis has been very gradual in its onset. The skin presents a rough, dry, stretched appearance.—8th: Patient seems brighter to day and has taken her food better. There is ptosis of left eyelid; both pupils equal.—13th: Patient has been attempting to talk but did not succeed in making herself understood.—14th: Patient, in reply to questions, can say "yes" or "no." During the last six weeks she has not uttered a word, she has not asked for anybody or taken interest in anything. She can now drink out of the feeder when it is held to her lips.—16th: Patient looks much brighter, talks a little; pupils equal, no ptosis.—23rd: For the last four or five days patient has been brighter and more intelligent looking, but she never attempted to speak unless spoken to, and then only replied with "yes" and "no"; paralysis remained complete. She has now relapsed into a drowsy, unconscious state again.—25th: Patient is very much worse, groaning expiration, rhonchi heard on both sides of the chest. Right pupil very much contracted, left dilated; neither reacts to light. Pulse 96, irregular. She died later in the day, never having been out of bed since Jan. 22nd (the only day on which vomiting occurred), from which time she had to be fed, only taking about one pint of fluid nourishment daily. The incontinence of urine and fæces continued from the first up to the time of death.

Necropsy.—The body was slightly emaciated. The skin over the whole body was extremely rough. There was a mass of growth situated over the first three ribs on the right side of the chest; it was attached to the chest wall, and was not fixed to the skin; it extended outwards to the axilla, and infiltrated the tissues in front of the shoulder. There were some enlarged glands above the right clavicle. There were no secondary deposits in the thoracic and abdominal viscera, with the exception of the liver, which contained one small nodule, the size of a pea, situated on the upper surface of the right lobe close to its right border. The right shoulder-joint was disorganised, the cartilage both on the humerus and scapula being eroded and destroyed. On removing the calvaria, the membranes were found congested, and there was an excess of cerebro-spinal fluid. The dura mater was adherent to the left occipital lobe of the brain over a surface of about an inch in diameter. The brain was of normal size, and there was no tumour seen externally. Situated in the posterior of the occipital lobe of the left cerebral hemisphere there was a large deposit of carcinoma; it was of a considerably firmer consistence than the normal brain substance, and was somewhat granular on section, being of a greyish-white colour, distinct from that of the brain. This mass was the size of a pullet's egg, nearly two inches in diameter antero-posteriorly and the same vertically, and reached the posterior surface of the brain, where it was adherent to the dura mater. The upper limit of this growth reached a little above the level of the roof of the lateral ventricle. Another carcinomatous deposit, an inch in diameter, and presenting similar characters to the other, was situated in this hemisphere above and anterior to the Sylvian fissure at Broca's convolution. It reached the exterior of the brain, with some thickening of the pia mater over this part, but no adhesion of the dura mater. The brain substance was firm and healthy in appearance, with no softening and no further deposits of new growth. There was no excess of fluid in the lateral ventricles. The microscopical examination of the growth occurring in the brain showed the greater part of the tumour to be made up of a stroma of homogeneous substance, through which fine fibrils pass, and between these, in places, cells were found either singly or massed together in considerable quantity. These cells were either round or irregular, and vary much in size, some being very large. The stroma contained a large number of thin-walled vessels, and blood was extravasated into parts of the growth. At the edge, more especially where the dura mater was adherent, the growth took the form of typical carcinoma, with large irregular



TRANSVERSE SECTION OF LEFT CEREBRAL HEMISPHERE, A LITTLE ABOVE THE LEVEL OF THE ROOF OF LATERAL VENTRICLE.

A, Tumour in frontal lobe cut transversely. B, Posterior limb of the Sylvian fissure. C, Parallel fissure of temporo-sphenoidal lobe. D, Tumour in occipital lobe, cut vertically and drawn apart. E, Dura mater adherent to occipital lobe. Above is seen the divided superior longitudinal sinus.

cells arranged in alveoli, formed by a coarse fibrous stroma. The alveolar arrangement was only seen to a slight extent in the more internal parts of the tumour, and here the cells were more or less degenerated.

There are several points of interest in this case. It will be seen that the tumour in the occipital lobe occupies what is termed the visual centre, and that the other tumour is situated at what is known as the centre for speech—viz., the posterior extremity of the third frontal convolution and adjacent parts of the ascending frontal of the left cerebral hemisphere. Unfortunately the eyes were never very satisfactorily examined, although several attempts were made; but slight optic neuritis existed on the right side—viz., the opposite to that of the tumour. Dr. Gowers says: "Occasionally it is one-sided, and then it is generally

on the side opposite the lesion."[1] As to the condition of sight it was almost impossible to learn, owing to the state of stupor in which the patient was in. The stupor and headache were the most, and almost only, symptoms at first. Concerning the former, Dr. Gowers remarks that "when there is pronounced stupor the tumour is usually situated in the cerebral hemisphere, and when there are no other symptoms it is generally in the anterior portion of the frontal lobe." But another symptom existed, which pointed to the anterior of the brain being affected—viz, the loss of speech. This, with the actual discovery after death of a tumour situated at Broca's convolution, together with the temporary improvement, with recovery to some extent of speech shortly before death, form perhaps the most interesting events in the history of the case. "A peculiar slowness of speech may be met with in association with tumours of almost every position" in the brain; but here we had total loss of speech, lasting from six to eight weeks, pointing to the speech centre being actually involved in the growth. This was followed by a short space of time (nine days) during which there was partial recovery of speech, probably due to the right cerebral hemisphere taking on that function, the patient being over forty years of age. Concerning this, it is worth noting that "loss of speech from disease of the left hemisphere is, as a rule, quickly recovered from in children by the compensatory use of the right hemisphere; a similar recovery takes place in some adults more readily than in others, and in some it does not take place at all."[2] Vomiting was practically absent, for it only occurred to a very slight extent once, and the patient never had any sense of nausea. No convulsions occurred throughout the course of the disease, and no deafness was noted beyond what might be expected with the stupor. The rarity with which carcinoma occurs, not only in the brain, but throughout the nervous system, secondary to scirrhus of the breast, makes any such case of interest. Out of the large number of persons affected by carcinoma of the breast, few die in hospital, so that it is somewhat difficult to say with what frequency secondaries in the brain do occur; but as such would usually produce more prominent symptoms than when occurring in other organs, the chances are that if such existed many would find their way into hospitals. As it is, we might expect to find some cases recorded at the Middlesex Hospital owing to their special cancer wards, but for the five years 1882-6, out of 165 cases of carcinoma of the breast with 41 post mortem examinations,[3] there was no case with secondary deposit in the brain. Again, at the same hospital, from the post-mortem examinations on 102 consecutive cases of cancer of the breast for the nine years 1867-75[4] we have only one case of "cancer of brain," although there are four other cases in which there is growth in cranial bones or the dura mater. Nunn gives 21 post-mortem examinations on breast cases under his own care. In two of these there were tumours in the brain. To only one is there any description: "The brain was, at its base, the seat of a globular cancerous tumour, the size of a racquet ball." In this case the patient had deafness, with increasing indistinctness of speech and difficulty in walking. Out of 35 cases of cancer of the breast on which post-mortem examinations have been made at the Cancer Hospital during the last three years (May, 1888, to May, 1891), there has only been this single case with growth in the brain. In another case, however, there was a growth springing from the cranial bones, involving the dura mater, and producing a depression on the brain. This, with two somewhat similar specimens, is in the hospital museum. Four years ago a patient died in the Cancer Hospital with scirrhus of the breast, in whom there was found to be a tumour on one of the optic nerves, in size that of the little finger nail, and proving microscopically to be carcinoma; and in 1889 there was a case in which the symptoms pointed to there being a deposit of carcinoma in the spinal cord, secondary to that of the breast, but proved to be a deposit on the bodies of the fifth to the tenth dorsal vertebræ. According to Dr. Gowers, true carcinoma is one of the rarer forms of new growth found in the brain, many cases recorded as such belonging in reality to malignant disease of the sarcomatous group. He gives no figures as to its frequency.

[1] Diseases of the Nervous System, vol. ii., p. 127.
[2] Ibid., vol. ii., p. 102.
[3] Roger Williams: Middlesex Hospital Report, 1888.
[4] Nunn: Cancer of the Breast 1882.

TWO CASES OF SCURVY OCCURRING IN CHILDREN.

BY AMBROSE CHARPENTIER, M.D.

CASES of scurvy are at the present day so rare as to render an account of two sufficiently interesting, I believe, for a place in THE LANCET.

CASE 1.—This patient was brought to see me on account of pain and tenderness when moved. The patient was a boy, and soon after his birth nine months ago his mother was unable to suckle him, and gave him cow's milk diluted with water. Then began the sad trouble usual with artificially fed children. The heavy curds of the cow's milk set up gastric catarrh, so the mother gave condensed milk, which, being very dilute, appeared to suit the child better until six months ago (the infant being three months old), when he seemed to crave for more nourishment. A "patent" starchy food was administered with the condensed milk, and at all events had the effect of satisfying the child's hunger. On examination the child was rather fat, but flabby and pale, and cried when moved, evidently in pain. The thighs were tender to the touch. The fontanelles were quite open, and the ends of the bones were slightly enlarged. The abdomen was swollen. There were no teeth. He was very restless at night, and the head sweated profusely. The bowels acted freely, and the motions were pasty and very offensive. Rickets was diagnosed, and the child was ordered to have a malted food, with diluted cow's milk in gradually increasing strength, so as to accustom the stomach to better nourishment. Gravy or beef-tea was to be given once a day, and a mixture of iodide of potash and lactophosphate of lime was prescribed to be taken three times a day. A fortnight later he was brought again, showing a small bruise on the back, and later he developed ecchymoses on the eyelids; while the left thigh was swollen, hard and brawny, and very tender to the touch. The mouth was very sore, and the gums red and swollen. It was now clear that the case was one of scurvy complicating rickets. A meal of potato pulp twice a day was ordered, as well as raw meat juice and the milk. The improvement was most rapid; in the course of a few days the worst of the symptoms had abated, and a fortnight later he could take iron and cod-liver oil with marked advantage to his health.

CASE 2.—This is a case of sporadic cretinism which also developed scurvy. A girl, sixteen years of age, with the typical appearance of a cretin, complained of a sore mouth. The mother and father are both natives of Middlesex, where they have always lived. The mother knows of nothing in the child's ante-natal life which could account for its condition. She states that she was dull at birth, and when seven weeks old had convulsions for a week, and since then has never been like other children. The child is about four feet in height, is dull and apathetic, cannot stand or speak, and takes no interest in life. She is very emaciated, and only swallows liquids. She has a goitre the size of an orange. She has been fed on fresh milk and beef-tea, with minced meat occasionally. I was called to see her on account of her mouth being "sore." On examination her gums were swollen, deep reddish-purple in colour, and prone to bleed. There was a small bruise on the left forearm, one on the left thigh, and a third on the right leg, for none of which the mother could account. There were no other hæmorrhages. The patient was ordered lime-juice to drink and potato pulp three times a day, and a harmless mixture as a *placebo*. Two days later the swelling of the gums had disappeared, the bruises were fainter, and no new ones had come out. In a week's time all the symptoms of scurvy had disappeared, and the child was in her usual health.

Remarks.—The occurrence of these two cases illustrates the necessity of a better knowledge of dietetics in medical practice. It is indeed a subject which well repays any attention given to it, both by the increased power over disease (especially in children) thereby acquired and by the use of more scientific and less haphazard methods of treatment. Another question closely connected with one of these cases is the more common use of condensed milk. In large towns naturally it is more easily obtained than good cow's milk; but even in country places it is largely used, as fresh milk is difficult to obtain. It is undoubtedly very

bad for infants, containing a large amount of cane sugar, which is very liable to disagree. The tin is usually left open in a close and foul air as long as it is in use, and the milk thus absorbs germs of disease which quickly set up gastro-enteric irritation. When given in the usual way (one teaspoonful to a "bottle" of water) it is far too weak to have much nutrient value to the child, which cries, and appears to be hungry. This is of course the signal for the administration by the nurse or mother of baked flour, oatmeal, or any other "food" which a perverted ingenuity can suggest, with disastrous consequences to the child's health. A curious point arises here. It has been said that fresh cow's milk has "anti-scorbutic properties" (Dr. Cheadle).[1] I do not know what are the grounds for the assertion, and I trust I shall not be held presumptuous in differing from Dr. Cheadle, yet I feel compelled to traverse the statement. If we believe in the antiscorbutic power of fresh milk, we must suppose there is something in it which is not present in condensed milk. Now, condensed milk is ordinary cow's milk sterilised, partially dried, and with a high percentage of cane (or beet) sugar added. The boiling or sterilisation cannot be at fault, for this is generally advised to be done with all milk before it is given to children. Nor can we consistently blame the cane sugar, for this is said to be no worse than milk sugar. Then again, one of my cases has always had new milk, and never condensed milk, while the other developed scurvy during the time he was taking new milk, when under treatment for rickets. We must, I think, admit that the scorbutic condition occurs independently of which kind of milk is taken, and depends more particularly on the lack of other appropriate food.

In those cases of rickets and scurvy which have been so successfully treated I would submit that the credit is more due to the raw meat juice, which is generally prescribed with the milk, and to the potato pulp than to the freshness of the milk. It is to be hoped that the spread of education will have some influence on the young mothers, and lead them to gather some idea of infant physiology, especially with regard to food. At the present time very many children are brought up on dilute milk and then given starchy foods which they are utterly unable to assimilate, causing rickets, with its concomitant troubles of diarrhœa, bronchitis, deformities *et hoc genus omne*, of which, if the victims survive, they feel the effects throughout their whole life, causing an incalculable amount of suffering which is quite preventable and should never occur.

Uxbridge.

ULCERATION OF THE CORNEA FOLLOWING INFLUENZA.

BY CHARLES HIGGENS, F.R.C.S ENG.,
OPHTHALMIC SURGEON, GUY'S HOSPITAL.

So many ailments—including cases of ulceration of the cornea—have been put down, with or without reason, to the results of influenza, that I feel some hesitation in publishing the following. It seems, however, that the two cases were sufficiently out of the common run to warrant the supposition that influenza, from which both patients were said to have suffered severely, had something to do with the protracted course of the disease and its intractable nature. I tried in both every kind of treatment, both local and constitutional, of which I have any knowledge, but am driven to the conclusion that the chief factor in the ultimate recovery of Case 2 was time. Case 1 is still under observation.

CASE 1.—W. W——, aged fifty, consulted me in November, 1890. His left eye had been inflamed for a month, and had been treated by a medical man without improvement. He had had a severe attack of influenza in September. There were much superficial ulceration of the cornea, intense ciliary congestion, iritis, and a good deal of pain. The treatment prescribed was bathing with belladonna lotion, hot fomentations frequently applied, and quinine internally. On Aug. 17th the ulceration had quite healed some weeks back, but what appeared to be a blister, which varied in size from time to time, remained on the lower third of the cornea. There was also a good deal of ciliary injection. Various applications were made to the eye, but without result. The blister was destroyed with the galvanic cautery, and the cautery was also applied around the lower third of the sclero-corneal junction. On Aug 24th the irritation set up by the cautery had nearly passed off. The condition of the eye had very much improved.

CASE 2.—T. B——, aged thirty-five, consulted me on Jan. 7th, 1890. He had just recovered from a severe attack of influenza; both his eyes had been inflamed eight days. There was extensive superficial corneal ulceration in both eyes, the central parts being most affected. I prescribed tonics, poppy-head fomentations, and atropine, and predicted that he would be well in from three weeks to a month. At the end of a week there was no improvement, and in spite of treatment, which included, amongst other remedies, yellow oxide ointment, eserine, boracic acid, iodoform, hydrocyanic acid, and borax, the ulceration continued without much improvement till April. The patient then went to the seaside, and by the middle of August the ulcers had healed, leaving extensive nebulæ On Dec. 8th, 1890, sufficient clearing had taken place to allow the right eye to read J. 12 and the left eye J. 1, the pupils being dilated with atropine, and convex lenses used. By February, 1891, vision had improved, but there was still much corneal opacity.

Brook-street, W.

[1] Infant Feeding.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.* lib. iv. Proœmium.

ST. MARY'S HOSPITAL.

CASES OF INJURY TO THE EPIPHYSES; REMARKS.

(Under the care of Mr. EDMUND OWEN.)

IT is of interest to read the account of the after result in cases of injury to the epiphyses if the injury was inflicted during the period of life when their integrity is essential to the proper growth of the bones. This is especially so when the injury was one unaccompanied by wound of the soft parts or other complication, and careful note was taken of the extent of the damage soon after its infliction. Many instances of very considerable shortening of a limb in consequence of such injury are to be found. Of these probabl the most marked have occurred after injury to the upper epiphysis of the humerus, and as this injury is not infrequently followed by ankylosis of the shoulder-joint the diminished growth of limb which results is partly dependent on the wasting which follows on the lessened use made of it. Mr. Hutchinson[1] has published a case somewhat similar to the first of these. Examples of the second are less common, for Mr. Tubby,[2] in a recent paper on this subject, states that he has not been able to find a case of stunted growth of either tibia or fibula following diastasis. For the report of these cases we are indebted to Mr. T. H. R. Crowle, F.R.C.S., surgical registrar.

1. *Arrested Development of Ulna.*—A. W——, when two years old (1872), got her hand into a chaff-machine. The blade cut off the lower epiphysis of the ulna, and, traversing the tissues along the inner side of the wrist, laid the radio-carpal joint freely open. She was admitted to St. Mary's Hospital under the charge of Mr. Owen; the wound healed, and nothing more was seen of the girl until she was fifteen years old. Measurement then showed that the ulna had developed but little, and that the radius, held on the inner side by the ulna, had grown in a curve, the concavity of

[1] Illustrated Medical News, November, 1888.
[2] THE LANCET, vol. i. 1891, p. 1254.

which was directed inwards. Thus, the radius was like a bow, and the ulna represented the bowstring. The result was that the hand was greatly adducted. The suggestion that a piece should be taken from the shaft of the radius, so as to make the forearm straight, was not accepted; but three years afterwards the mother brought the girl, and asked that that operation should be performed. Subperiosteal resection of about an inch of the lower third of the radius was therefore performed, and with an entirely satisfactory result, the forearm and hand being rendered comparatively straight.

2. *Arrested Development of Tibia.*—L. B——, aged fourteen, was admitted to St. Mary's Hospital at the beginning of July on account of lameness due to inversion of the left foot. The clinical history shows that five years previously she fell whilst climbing over a gate, and that, catching her foot between the bars, she broke her leg just above the ankle. The line of fracture passed, apparently, across the junction-cartilage of the tibia, and detached the lower epiphysis. The effect of this injury was to check the due growth of the tibia. Careful measurement showed the left tibia to be 1½ in. shorter than the right, whilst the left fibula was shorter than the right by only ¾ in. (This arrested development of the fibula may have been due to its epiphysis having been damaged by the hurt, or to the restraining influence of the short tibia. The latter explanation is probably the correct one, for the lower end of the fibula was not only much curved, but also greatly thickened.) Like the radius in the previous case, the bowing of the fibula was outwards, the tibia playing the part of the bow-string. As the presence of the strong interosseous ligaments between the lower ends of the tibia and fibula would have prevented any improvement in the position of the foot following resection of a piece of the shaft of the fibula, and as the girl walked with fair comfort, no speculative interference with the bone seemed justifiable. She was, therefore, discharged with a clumsy-looking but useful leg and foot.

3. *Conical Stump of Arm.*—A boy of five years, who went by the name of "Boxer," put his right hand and forearm into a sausage-machine in March, 1884, with the result that amputation had to be performed just above the elbow. The ample flaps promptly united, and the boy went home. In October, 1889, he was readmitted because the stump had become conical and painful, and the bone was close against the scar. Chloroform being administered, the house surgeon, Mr. Hanson, removed about one inch and a half of the humerus from beneath the periosteum. The wound healed rapidly, and the boy returned home within a week. In a little more than a year he was again admitted because the bone had grown too long for the stump. This time the house surgeon, Mr. Winter, removed two inches of the end of the humerus. And it is by no means unlikely that the boy will ere long be again admitted for a repetition of the operation.

Remarks by Mr. OWEN.—Unless the fact be generally recognised that a conical stump is very apt to follow certain amputations in childhood, parents may be dissatisfied and the surgeon disappointed when a sawn humerus or tibia is found pressing against a tender and threadbare scar. Still, the occurrence is almost as physiological as that of the growing schoolboy's sleeves and trousers "getting too short." When amputation is done in the diaphysis the bone keeps on growing from its upper epiphysis, regardless of the fact that the skin and subjacent tissues have no provision for keeping pace with it. In the *New York Medical Record* for last year Dr. Charles A. Powers published an extremely interesting paper on this important subject, instancing the case of a boy of six years, from whose humeral stump four inches and a half had, in various operations, been thus removed. In the Surgical Dictionary, in an article on Affections of Stumps, Mr. Bernard Pitts calls attention to the growing humerus sometimes causing a conical stump; whilst Mr. Bryant, in his work on Surgery, offers a useful caution in the matter of the tibia. He says, indeed, "In the amputations of childhood this condition must be expected." The more important epiphysis in the growth of the humerus and of the tibia is the upper one. In the case of the bones of the thigh and forearm the lower epiphyses are the more important; and as in amputation through these bones those epiphyses are removed, it is, as might have been anticipated, quite exceptional that the stump of a child's thigh or forearm becomes conical.

METROPOLITAN HOSPITAL.

A CASE OF ADDISON'S DISEASE; NECROPSY; REMARKS.

(Under the care of Dr. C. R. DRYSDALE.)

THIS case is one in which disease of the suprarenal capsules of a tubercular nature was found, and in which, although the disease appeared to run a rapid course, it is probable the pathological changes had existed for some time. The deposits of tubercular material in the urinary tract were of old date, and would account for almost every symptom, excepting the pigmentation of skin. This pigmentation is, however, not invariably present, cases having been recorded during the past year which presented during life all the other symptoms without this, and in which advanced disease of the suprarenals was alone found to account for death. Careful records of this fatal disease are still desirable when we find written in one of our text-books: "The relation between the tubercular disease of the suprarenal capsules, the discolouration of the skin, and the remarkable group of symptoms which attend these lesions, is yet a matter of impenetrable obscurity." For the notes of the case we are indebted to Dr. C. F. Marshall, house physician.

H. D——, aged thirty-nine, was admitted to the Metropolitan Hospital on July 22nd, suffering apparently from Addison's disease. The history was three or four months' progressive weakness, emaciation, and pigmentation of the skin, with occasional morning sickness. The patient had had eleven children, and had suffered from incontinence of urine for six years. The skin of the whole body was of a yellowish-brown or bronze colour; about the neck, axillæ, nipples, pubes, and linea alba the colour was darker, and of a dirty brown hue. Pigmentation of the buccal mucous membrane was not well marked. There was slight exophthalmos, but Graefe's symptom was not present. No signs were discovered in lungs or heart. The splenic dulness was increased, and the edge of the spleen felt below the ribs. Urine acid, sp. gr. 1010; slight deposit of pus. The progress of the case was as follows.

July 27th.—Emaciation and pigmentation increased visibly since admission—i.e., in one week. Rather drowsy, and does not take nourishment well, but talks rationally and without effort.

28th.—More drowsy. Takes very little food.

29th.—Semi-unconscious, and lies most of the day in a torpid state. Pigmentation and emaciation still more increased.

30th.—Quite unconscious. Respiration rather shallow; not stertorous. Pus in urine increased.

She died on Aug. 1st. The temperature was irregular during her residence in the hospital, varying between 99° and 102° F.

Necropsy.—Both suprarenal capsules were enlarged, especially the right. Both contained a new growth, which microscopically was found to be tubercle. Most of the tubercle had undergone fibroid change, and there was very little caseation. Numerous giant cells were found. The left kidney was in an advanced stage of tubercle, being reduced to a caseous mass. The right kidney was hydronephrotic, and the ureter dilated. The bladder was extremely contracted and could not have held more than an ounce of urine, its walls were thick and affected with old-standing tubercle. At the apex of each lung was a small patch of old tubercle, fibrous at the right apex, caseous at the left. No recent tubercle in lungs. The spleen was enlarged and weighed twelve ounces. No tubercle was found in the intestines, brain, or liver. The semilunar ganglia and solar plexus had apparently undergone some amount of atrophy, as they were unusually difficult to dissect out.

Remarks by DR. MARSHALL.—This case is remarkable in several ways:—1. The great rapidity with which the symptoms developed. The history was only of three or four months' duration, and the patient was quite cheerful and rational till four days before death. 2. The extensive tubercular disease of the kidney and bladder, with consequent hydro-nephrosis of the other kidney, make it probable that the immediate cause of death was uræmia. This raises the question as to whether the case should be considered a true case of Addison's disease. However, if Addison's disease is defined as a tubercular lesion of the suprarenal bodies, accompanied by bronze pigmentation of the skin and progressive emaciation and bodily weakness, I think

there can be no doubt as to the above case being a true example of the disease, although more than usually complicated by other lesions. 3. The enlargement of the spleen is unusual, and may possibly throw some light on the nature of the disease. 4. The extremely small capacity of the bladder explains the incontinence of urine, and as this had existed for six years the tubercular disease of the urinary organs must have been of about the same date.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.

GUNSHOT WOUND OF LUNG, STOMACH, AND LIVER; ABDOMINAL SECTION; RECOVERY.

(Under the care of Mr. W. SQUARE.)

THE following is an interesting case of bullet wound, involving both the thoracic and abdominal cavities, in which recovery followed abdominal section for supposed perforation of the stomach. And although it does not appear that any lesion of the stomach was found, in our present knowledge of the fatal effects of bullet wounds of the intestinal tract few surgeons would have failed to examine the abdominal contents in the presence of the symptoms described—the vomiting of blood and signs of commencing peritonitis. These symptoms undoubtedly point to perforation of the stomach (the fact of mere contusion of the organ may be at once dismissed), and it is probable that the empty state of the organ at the time of the receipt of the injury had much to do with the recovery of the patient, a fact alluded to in the remarks to the case. We owe most of our present knowledge of the treatment of bullet wounds of the abdomen to American surgeons, who have accumulated many facts bearing on the subject. Mr. Jacobson, in the second edition of his work,[1] draws attention to the great mortality of such cases when not operated on, and quotes Professor Nancrede's estimate of 8 per cent. only of recoveries, whilst the percentage of recoveries after operation by American surgeons is placed as high as 65·45 per cent by Dr. Morton. For the notes of the case we are indebted to Mr. W. Gifford-Nash, house surgeon.

H. G——, aged fifteen, a page-boy, was admitted to hospital at 11.30 P.M. on May 18th, 1891, having been shot about half an hour previously at a shooting gallery. He was behind a curtain at a distance of about twelve feet when a rifle was accidentally discharged. On admission the boy was much collapsed. The bullet was found to have passed through the soft tissues just above the internal condyle of the left humerus. It then entered the left side of the chest in the mid-axillary line in the ninth intercostal space. A probe passed directly inwards four inches through the base of the left lung. It could easily have been passed further. There was hyper-resonance over the left half of the chest, and the breathing was much impeded. The chest was bandaged, five drops of laudanum given, and the boy placed in bed and hot bottles applied. At 2.15 A.M on May 19th he vomited about half a pint of brownish fluid, consisting of partially digested blood. From this time he was fed by nutrient enemata of milk, beef-tea, and laudanum every four hours. At 10 A.M. the abdomen had become distended and painful. The temperature was 101·6°, and the pulse 112. It was decided to explore the abdomen, as it was possible the contents of the stomach were escaping. At 4 P.M. chloroform was given. On removing the dressing the bullet was seen beneath the skin over the sixth right space, an inch to the right of the right nipple. It was removed, and found to have assumed a concave surface on one side instead of its previous rounded form. The bullet weighed fifty-two grains. The abdomen was opened by an incision reaching from half an inch below the ensiform cartilage to an inch above the umbilicus. The liver occupied the upper third of the incision. There was no evidence of peritonitis beyond distension of the intestines. In front of the right kidney was some blood-stained fluid, which was sponged out. The abdomen was flushed with warm boracic solution, and a Keith's glass drainage-tube inserted into the right lumbar region from the lower end of the incision. There was very little discharge from the glass tube, which was taken out on May 22nd. The stitches were removed on the 27th. Nutrient enemata were given for ten days. On the 21st he began milk and lime water; on the 24th, junket; 26th, custard; 28th, rusks; on June 3rd he had nose-bleeding, and vomited a little blood, so returned to a diet of milk only; on June 11th he had fish, and on July 1st meat. He is now quite well.

Remarks by Mr. W. GIFFORD-NASH.—The course taken by the bullet in this case appears to have been through the lower lobe of the left lung, diaphragm, stomach, and liver, and probably through the diaphragm a second time. The absence of hæmoptysis and surgical emphysema does not negative wound of the lung. From the direction taken by the bullet, as shown by probing, it is impossible that the lung should have escaped being wounded. The hyper-resonant percussion note also pointed to escape of air into the pleural cavity. The vomiting of a considerable quantity of partially digested blood is strong evidence of a wound of the stomach. Luckily the boy had not had a meal for five or six hours before the accident. After penetrating the stomach the bullet could not have reached the spot at which it was found without perforating the liver. With regard to the operation, it was felt that probably the contents of the stomach were escaping, and very likely there was bleeding into the peritoneal cavity. Also it seemed probable that peritonitis had already commenced. It seemed advisable, therefore, to wash out the peritoneal cavity and do whatever else might be found necessary. At any rate, the result has justified the measures adopted. This case reminds me of one I saw when house surgeon to Mr. Henry Morris at the Middlesex Hospital in 1887. On Nov. 1st, 1887, a man aged twenty attempted to shoot himself in the heart with a revolver. He aimed at the spot of the apex beat. He was very collapsed on admission, but lived sixteen hours. At the post-mortem examination it was found that the bullet perforated the left fifth rib, passed through the pleura into the pericardium, deeply grazed the left ventricle of the heart, again traversed the pleura, perforated the diaphragm, passed through the cardiac end of the stomach, again through the diaphragm and lower lobe of the left lung, and finally the eleventh costo-vertebral joint, lodging in the erector spinæ muscle. The left lung was collapsed, and the pleural cavity contained twenty-six ounces of blood. The right lung was engorged, and contained inhaled blood. There was extravasation of gas and contents of stomach into the peritoneum.

[1] The Operations of Surgery, p. 793.

Reviews and Notices of Books.

Arcana Fairfaxiana Manuscripta: a Manuscript Volume of Apothecaries' Lore and Housewifery nearly three centuries old, used, and partly written, by the Fairfax Family. Reproduced in facsimile of the handwritings. An introduction by GEORGE WEDDELL. Newcastle-on-Tyne: Mawson, Swan, and Morgan. 1890.

IN approaching a book which, according to the title-page, is nearly three centuries old, the task of a reviewer is most curiously different from that to which he is ordinarily accustomed. There is no need to look cautiously for any omissions of the latest information. The reader at once plunges into depths which he is unable to fathom; the reasons of things elude his grasp; he requires to construct a new platform for observation before he can reasonably appreciate the quaint intricacies of diction, of thought, and of argument. Familiar landmarks are wanting, while in their place are to be found strange odds and ends of superstition, mingled with an instinctive reverence (which we can scarcely be said to have outlived) for those remedies which are reputed to have worked wonders for "distinguished personages." No book which has appeared in recent times more thoroughly exemplifies the general truth that the effect produced must vary with the point of view assumed by the reader. It is possible that to some the book will be *caviare*, that it may be tossed aside as a relic of a bygone age scarcely worth preserving—that a spirit of disdain for the thoughts and beliefs of three centuries ago may deprive the readers of pleasure and the enterprising editor of his due reward. But, on the other hand, to those who delight in tracing the growth of medicine this book is likely to prove of intense interest.

About seven years ago Mr. George Weddell stumbled across the volume in a box of lumber when clearing out some premises which had been occupied by a firm of chemists for a hundred years. Having rescued it, he became engrossed in the quaint language and curious remedies, and devoted considerable time and trouble to clearing up the mystery shrouding its origin. In this endeavour he appears to have been largely successful. He thinks the book was originally made for the use of Margaret Cholmeley, and that it passed into the hands of her daughter, who married the Hon. and Rev. Henry Fairfax in 1626 Together they did a great deal to make it a volume of Apothecaries' Lore and Housewifery, all kinds of prescriptions and directions for the treatment of disease being accumulated in its pages, together with receipts for baking meats, bleaching yarn, and the like. The next most important possessor of the volume, who contributed largely to its pages, was a certain Robert Green of Cocken, who appears to have made the latest additions between 1766 and 1770. In dipping leisurely into this book, it should not be forgotten that in spite of frequent marks of professional skill the compilation has not been made by medical men or by chemists, that it is just what any average educated man might make if he set to work vigorously collecting any and every scrap of medical advice. No order has been followed; the different items appear to have been "when found, made a note of," on Captain Cuttle's principle. Thus, the first few pages include remedies "for a wenn," "for the reddnes of the eyes or bludshod," "for chilblanes," "for an ache in any parte of ye bodye," "for ye bleeding at ye nose," "for the falling sickness," "for the shrinking of ye sinewes," and then, by a strange transition, come two remedies "for them theyr speech faileth." Even in these few the touch is distinctly Shakespearian, indicating that the ingredients of the witches' cauldron were not so very far removed from the medicine of the day. The directions "for ye bleeding at ye nose" (which, by the way, are marked "probatum" with a cross, but whether this is a good mark or not is not indicated) run as follows: "Take a toade and drie it in Marche, put ye same into some silke or sattene bagg, and hange it about ye neck of ye party next the skinne, and by God's grace it will stanch presently." "For the falling sickness, take the harte of a toade and drie it and beate it to powder, then drink with what drink you will."

The uncertainty of treatment is charmingly expressed in the following: "To take away freckels in the face, take the snaile with the shell and stamp them smale, and temper them with the white of an egg, and rubb the face with it morne and even; use it daily, it will help." "Two spoonefulls of woman's milk of a manchild," together with the "juice of the budds of redd roses," "kowalip olle," and nutmegs form some of the ingredients of an ointment "for the swyming in ye head, given by Mr. Vessalius (ye Emperor Charles' physition) to Quene Mary. Damask roses half blowne out," also appear in "An Electuary yt Quene Mary was wont to take for the passion of the hart;" but, as a counterpoise, we are told on the next page, "For ye green sickness, take earth wormes, open them, wash them clean, drye them in an oven, and beat them to powder; give 2 sponefulls in white wine in ye morneing."

As the reverend compiler of this part of the volume proceeds, he becomes more certain of the efficacy of his directions. He has found a cure "for a benommed member" which "will make hym whole in five or vi daies;" while "for deafnes" he advises us to "take the galle of a hare and mix it with woman's milk, and putt of it into the eare warme, and stopp it close with black wooll, and it healeth in nyne daies." In another handwriting we find "a certaine remedy for ye toothache," and, to cap all, there is an "unfallible" cure for the epileptia, "which remedieth in six daies." This is too nauseating to quote, but it is stated that it "is prooved bothe of man, woman, and childe unfallible."

Amongst other curiosities is to be found a "jelly for opening ye stomache and cleansing ye lights"; directions "to make a worme come out of ye head"; also "to make a man heare yf ever he shall heare." The portions devoted to housekeeping are as mixed as the earlier parts, and show that the book was intended for reference only. "An excelent eye-water" is followed by instructions to make a "German black ball for shoes," "liquid blacking," "currant and rasp. wine," and then comes "a cure for ye bite of mad dog," which, it is stated, has "stood a tryal of 50 years' experience, and was never known to fail." The above brief record by no means exhausts the interest of this book. It affords supposed aids to diagnosis and to prognosis; it indicates the nature of diseases which were considered to be most troublesome and yet frequently within the reach of specifics. It supplies a fair idea of the nature of the remedies employed, embracing plants and portions of plants, as well as animals and even unexpected scraps of the human subject. Of the value of the instruction afforded by the selections from the kitchen it is difficult to speak. Many do not look inviting on paper, but practical proof is wanting, and on such a question of taste it is not safe to be dogmatic. Mr. Weddell is to be congratulated upon having decided to reproduce the book in facsimile. It is no doubt more difficult to read than if it had been deciphered, and printed in ordinary type; but it is vastly entertaining to be able to trace the ideas actuating those who compiled this book, a task greatly facilitated by retaining the original appearance as far as possible.

The Annual of the Universal Medical Sciences. Edited by Dr. SAJOUS. F. A. Davis, Publisher, Philadelphia, New York, Chicago, Atlanta, and London.

THIS work, which consists of five volumes, is "a yearly report of the progress of the general sanitary sciences throughout the world," in the compilation of which Dr. Sajous is aided by seventy associate editors, who again are assisted by over two hundred corresponding editors, collaborators, and correspondents. The present issue is the fourth of the series, and sustains the reputation already gained by the others. We have drawn the attention of our readers in previous years to the excellence of this publication and the magnitude of its scope, and do not doubt that it is already in the libraries of many of them. No one who wishes to keep pace with the advance made by the medical sciences during the previous year can afford to neglect this storehouse of information, where everything is carefully arranged by skilled hands and made easy of access, whilst a glance through the series would probably save our societies many lengthy discussions on exploded theories. The delay in the appearance of this issue was caused by sickness amongst the editorial staff and by the increase in their professional duties from the continued prevalence of influenza, one only of the three secretaries being able to continue at his post. The general plan and logical sequence of the work are like that of last year, but a great improvement is the addition of a reference list at the end of each volume. Those who are accustomed to refer to the work from time to time will appreciate this change. The illustrations are good and sufficient. Amongst peripheral nervous diseases is an account of one called Morvan's disease, which is probably unknown in this country, and was described in 1883 by Dr. Morvan of Brittany. The affection, which appears to be confined to a small district in that part, may be confounded with scleroderma, anæsthetic leprosy, and with Raynaud's disease, and was defined in the first instance as a state of "analgesic paresis with panaritium of the upper extremities." We cannot refer to individual parts of the work in detail, but our readers will find it to their

interest to do so, for whether they turn to the medical, surgical, anatomical, physiological, or other sections, they will have the latest and most important information before them — the wheat of the world's gleanings carefully winnowed.

Principles of Surgery. By N. SENN, M.D., Ph.D., Milwaukee, Wis., Professor of Principles of Surgery and Surgical Pathology in the Rush Medical College, Chicago, &c. Illustrated with 109 wood engravings. F. A. Davis: Philadelphia and London. 1890.

THIS is an ambitious attempt to write a great book. The author states that "the recent great discoveries relating to the etiology and pathology of surgical diseases have made the text-books of only a few years ago old and almost worthless," and that "most of them are defective in those parts relating to the matter treating of the fundamental principles of the art and science of surgery." To fill this gap in surgical literature, then, has been Dr. Senn's aim, and to realise it he has brought to bear great industry in searching out the most recent discoveries of the many continental workers in the fruitful fields of bacteriology. The book is full of valuable information, and it is impossible to read it without realising its value. But it fails in being a first-rate work, because it is so evidently the outcome of hurry. Dr. Senn had not time even to read his proof-sheets, or to spell names he quotes correctly, still less to digest and ponder over much that he has read. Students therefore will find "the old and almost worthless" text-books far more useful and enlightening to them than this new ill-arranged and ill-assorted collection of all the newest discoveries. The section on the pathology and treatment of tumours has been kept back, and is to be published as a separate volume. We trust that Dr. Senn will take plenty of time over it, and let us have a volume worthy of his undoubtedly great powers.

New Inventions.

ANTISEPTIC INDIARUBBER CUSHIONS.

PATIENTS frequently complain of the inconvenience of using the various forms of bed-pans at present in existence, arising from the want of proper padding for the utensils when in use. Messrs. Maw, Son, and Thompson, of Aldersgate-street, E.C., have forwarded to us for examination several indiarubber air or water-cushions, which can be applied to the bed-pan, bed-slipper, or bed-bath, thereby ensuring comfort for patients suffering from many of the most distressing forms of disease. In the case of the bed-slipper, the upper surface is covered with a cushion attached to a case, into which the slipper is placed, the cushion being firmly secured by straps. The indiarubber cushion can then be inflated with air or supplied with warm water, or partly with the one, partly with the other, making in this way a warm, light, soft cushion, most comforting to a bed-ridden patient. For the bed-bath the cushion covers the whole of its upper surface, and, being filled in the way described in the previous case, is thus admirably adapted for urethra, vagina, perineum, and rectum cases. The cushions are strong, durable, convenient of application, and, being entirely of indiarubber, can be thoroughly carbolised and rendered perfectly aseptic.

TORSION BRAIDED WIRE SPRINGS.

THE torsion wire pillows, mattresses, upholstery, and carriage cushions supplied by the American Braided Wire Company can be freely recommended. The pillow is made of the finest blue-tempered, watch-spring steel wire, and is perfectly resilient. Each is composed of a series of springs, which have been submitted to very severe tests without the slightest apparent change. For use at home or in foreign countries, in sickness or in health, in any season of the year, these cushions will afford the maximum of comfort, durability, and cleanliness with the minimum of wear and tear. They afford a very comfortable adjunct to a reclining chair, and constant use does not seem to impair their elasticity. The braided wire springs appear calculated to a large extent to take the place of the ordinary feathers or hair used in the construction of pillows, mattresses, and cushions, and to possess hygienic properties of value.

Analytical Records.

GRANULAR EFFERVESCENT PREPARATIONS.

(ALFRED BISHOP, SPECK'S-FIELDS, MILE-END NEW TOWN, E.)

MR. BISHOP is evidently untiring in his efforts to secure a satisfactory granular effervescent form of the drugs of more recent introduction. Of his latest productions which we have had occasion to examine are the following:—Podophyllin, ⅛ gr. in each drachm; phenacetin, 5 gr. in each drachm; lithia salicylate, 5 gr., and sodium bromide, 5 gr. in each drachm; phenacetin, 5 gr., and quinine, 1 gr., in each drachm; antipyrin, 5 gr., and quinine, 1 gr., in each teaspoonful; antipyrin, 2½ gr., and salicylate of soda, 2½ gr., in each teaspoonful; bismuth, 4 gr., pepsine, 4 gr., and strychnine, $\frac{1}{10}$ gr., in each drachm; and sulphonal, 15 gr. in each drachm. Many of the active ingredients, like phenacetin, lithia, salicylate, bismuth, and strychnine, were successfully extracted and identified by characteristic chemical reactions. The preparation containing phenacetin in particular yielded this new antipyretic in a state of unquestionable purity. Each and all are admirable specimens of the granulating art.

BALLANTINE'S BEST GENEVA GENUINE SCHIEDAM.

(GEORGE BALLANTINE & SON, 100, UNION-STREET, GLASGOW.)

Hollands, Schiedam, or Geneva is essentially a product of the distillation of unmalted rye, and is a spirit much in repute on account of its own peculiar flavour and its freedom from solid matter. The flavour which should characterise genuine Hollands is due to the peculiar mode of manufacture rather than to the juniper which is employed in Dutch distilleries. The sample under examination is evidently genuine, and analysis indicates it to be an excellent and wholesome spirit. Solid matter was practically absent, the figure obtained on analysis being as low as 0·03 per cent., whilst the alcoholic strength was slightly over proof.

CUCA COCA.

(ROOT & CO., LIMITED, 38, GREAT RUSSELL-STREET, W.C.)

This is an excellent cocoa, said to contain all the properties of the natural leaf of erythroxylon coca. Cocaine was accordingly sought for. After separating the obviously reduced amount of fat, which amounted to 23 per cent., the residue was treated with ether. On evaporation, the ether yielded a residue which gave the characteristic reaction of cocaine, the most reliable test perhaps being that of the sense of numbness produced by it upon the tongue. In this novel preparation, therefore, are contained two substances of very definite therapeutical value—theobromine (cocoa alkaloid),—a renowned restorative, and cocaine, the alkaloid of the coca plant—a powerful stimulant and tonic.

EUROPHEN AND ARISTOL.

(FRIEDR. BAYER & CO., ELBERFELD. BRYCE & RUMPFF, 15, FISH-STREET HILL, LONDON.)

The valuable and deodorising properties of this comparatively new and interesting substance have already been

referred to in our columns.[1] It is a substitute for iodoform, and is said to possess properties superior to iodoform in one or two respects. It adheres to the surface more easily, and its specific gravity is less by a fifth, so that five times as much iodoform as "europhen" is required to cover a given surface. Europhen, or more correctly, iso-butyl-ortho-cresol iodide, has a less penetrating odour, and it appears to part with its iodine more readily than iodoform. We find that mere heating suffices to expel the iodine in a free state. On continuing the heat, it burns, with a smoky flame, and leaves little or no residue. Europhen dissolves readily in spirit, but is reprecipitated on the addition of water. The same firm also make "aristol," another iodoform substitute, and a derivative of thymol, which promises to be of peculiar value as an antiseptic and deodorant. It is a fine yellowish-red powder, which adheres readily to the skin or surfaces of wounds. Aristol is insoluble in water and glycerine, and but slightly soluble in alcohol. In ether, collodion, and chloroform it is freely soluble, and also in fatty oils and vaseline.

MIKOZONE; EXT. ALETRIS CO.; LIQUOR KAVA KAVA CO.; LIQ. PAPAIN CO.

(JOHN RICHARDSON & CO., LEICESTER.)

We have received and examined the following novel preparations from the above well-known firm: Mikozone, a new sedative and hypnotic; dose, half to one drachm; composition, chloral hydrate, potass. bromide, ext. cannab. ind., ext. hyoscyam., with syrup. Ext. aletris co.: each fluid drachm equal to ten grains each aletris farinosa and hydrastis Canadensis (uterine tonic). Liquor kava kava co.: dose, half to one drachm; composition, kava kava (piper methysticum), prince's pine (chimaphilla umbellata), golden seal (hydrastis Canadensis), tag alder (alnus rubra), and uva ursi. Liq. papain co.: papain, nux vomica, and euonymin; dose, half to one drachm. Mikozone is a dark-brown clear solution, acid to test paper and saline to the taste. The presence of both chloral and potassium bromide was confirmed. Ext. aletris has a strong bitter taste, somewhat like common bark. It is a dark-brown fluid, acid to test paper, forming a faintly opalescent solution when added to water. Kava kava is acid in reaction, bitter to the taste, resembling in this respect cocoa nibs. Strychnine was successfully extracted from the liq. papain co., while the activity of the papain was made apparent on hard-boiled white of egg. The preparation is perfectly miscible with water. All these preparations are evidently made with especial care, the drugs contained in them are in perfect solution, and obviously of a selected kind.

BUSH'S LIQUID BEEF.

(ARTHUR P. BUSH & CO., BOSTON, CHICAGO, AND LONDON, 1, GRESHAM-BUILDINGS, E.C.)

Our analysis and examination of this admirable preparation show the extraordinary degree of concentration that has been attained by a process which can only be regarded as phenomenal, since the retention of the beef-juices in the raw and uncooked state has also been secured. It is a somewhat viscous fluid of sweetish taste, which suggests a trifling quantity of glycerine. Heated in a test-tube the extract turns quite solid, so that the tube may be inverted without spilling the contents. Alcohol produces an abundant blood-red coagulum resembling clotted blood. The total solid matter amounted to 22·22 per cent., of which 1·25 was mineral constituent (phosphate), 16·90 albuminous matter (2·68 nitrogen), and 4·07 other organic principles. Despite the excellent condition of the sample submitted to us, no objectionable preservatives could be found.

OIL OF EUCALYPTUS MACULATA (VAR. CITRIODORA).

(TIMBURY'S EUCALYPTUS OIL CO., 124, CLERKENWELL-ROAD, E.C.)

This very interesting product differs from the ordinary eucalyptus oil in that it is characterised by an exceptionally fragrant, penetrating, and pleasing odour, resembling very closely the scented geranium. It is distilled from the young leaves of the eucalyptus maculata (var. citriodora), which grows in the Port Curtis district of Queensland. Very satisfactory results were yielded on examination, and the following factors which we obtained demonstrate the eminent purity of this remarkable product: Specific gravity at 15° C., 0·872; boiling point, 190° to 195° C. This oil seems not only admirably fitted for all ordinary antiseptic and deodorising purposes, but it is also of probable value in the form of inhalation in pulmonary affections, and in the treatment of certain internal disorders.

[1] THE LANCET, vol. ii. 1891, p. 504.

THE PATENT SOXHLET STERILISING APPARATUS.

DR. SOXHLET of Munich is so well known in connexion with the analysis and bacteriological investigation of milk that a sterilising apparatus, which bears his name, is almost certain to attract general attention. The patent Soxhlet apparatus recently submitted to us for inspection by Messrs. Maw, Son, and Thompson consists of (1) a metal saucepan containing a movable frame, resembling a large cruet-stand, and (2) a wooden rack with metal support, for draining the bottles. The rack is fitted below with a drawer for storing certain small pieces of apparatus, such as indiarubber discs, metal caps for covering the discs, a cleaning brush, and a few rubber nipples. With these are also provided a graduated jug, a warming pan, and a number of bottles. To sterilise the milk, the bottles, which are made of special heat-resisting glass, are filled and placed in the frame. The mouth of each is then covered with an indiarubber disc, upon which rests a metal cap loosely fitting over the neck so as to keep the disc in position. Herein consists the main novelty. After the temperature has been gradually raised in the saucepan and maintained for a sufficient time, the frame,

with its load of bottles, is removed. The bottles, of course, soon cool, and, in doing so, the atmospheric pressure acting on the discs ensures the perfect closure of the bottle. The metal caps may then, if desired, be removed. It is stated that the bottles from which the discs have not been removed may be used without hesitation on the second or third day after the sterilising process. It is now known that the advantage gained by feeding infants in the natural manner is mainly owing to the fact that the milk from the breast is free from germs, while cow's milk invariably contains organisms which set up decomposition and curdling. Hence it is argued that by destroying the organisms the condition of cow's milk may be made to approximate very closely to that of the mother. This is the real object of milk sterilisation. The apparatus of Dr. Soxhlet seems to us to supply a much-needed want, inasmuch as it admits of easy manipulation, while it does not appear to require a more than ordinary amount of care and attention. The only fear that need be entertained is neglect on the part of those entrusted with it to thoroughly clean the fittings after use.

THE LANCET.

LONDON: SATURDAY, OCTOBER 3, 1891.

IT is impossible to study the Introductory Addresses which we publish to-day without feeling proud of the profession to which we belong, and recognising that it is yet only, as it were, at the beginning of its work. The idea of finality can have no fitness in regard to the investigation of medical problems, except perhaps in one direction. We seem to have arrived at finality in respect of the methods by which such investigations are to be successfully achieved. All the lecturers who touch on this subject are agreed, and indeed there can be no dispute that it is only by the steady, painstaking, accurate study of facts in a thoughtful and hopeful mood that fresh discoveries are to be made. The perfection of instruments has now reached such a stage, and the line of promise is so clearly indicated, that if we can but secure intelligence, industry, and accuracy in the search for facts, there seems no end to the rewards which await the diligent and loyal searchers after truth. These are not, it may be thought, very high or rare qualities. They are not so rare as they are thought to be. It is the combination of them that is rare. Genius may be something higher than and different from the rare combination of these qualities. That is possible, even probable. But if a man has good intelligence to start with, and is blessed besides with the faculties of industry and accuracy, he has very valuable qualities, and in the long race of life will be pretty sure to beat the man who relies on some subtle, indefinable quality which is called genius. Take the man whose discoveries have lately revolutionised medicine, and whose achievements constitute at once the theme and the inspiration of so much that was said to the students on Thursday, as an instance. Deprive even PASTEUR of these three qualities, and it is evident that all the mysteries of the disease of the silkworm, of anthrax, of rabies, and of sepsis, on which Dr. BLANDFORD discoursed so well, would probably have been yet undiscovered. The quality of accuracy seems a prosaic one, but hear what so good a judge as Sir GEORGE HUMPHRY has to say of it: "One of the most important changes in medical study which have taken place in the half century of my time is increase of accuracy. . . . . It is by accuracy that almost all great and good work is done." The rate of life and progress is now so fast that men are apt to believe in short cuts to any end, whether it be knowledge or fame or practice. It is a mistake. Accuracy will carry the day in examinations, in discoveries, and finally in practice. As Sir GEORGE HUMPHRY says, "it is upon accuracy (which means attention and painstaking) that the edifice of talent and success is reared."

There was a remarkably sanguine note in the chief addresses, as that of men who thought medicine was yet in its infancy:

> "This fine old world of ours is but a child yet in the go-cart;
> Give it time to learn its limbs."

This sanguine estimate of medicine had reference, not only to it as a profession, by which men had to make a living, but as a science, the object of which is to promote the longevity of man as individuals and in communities. Sir GEORGE HUMPHRY, Dr. BLANDFORD, Mr. VICTOR HORSLEY, Dr. WILLIAM DUNCAN, and others were all alike in this estimate. It is a pleasant, significant thing to hear a man who has seen fifty years of medical practice, and who no doubt has at times felt painfully, as the best practitioners do, the limitations of his art, tell his young hearers that if they deserve success and happiness there is no profession more likely to yield them than that of medicine. Mr. HORSLEY in his address, found time to give his hearers some advice on the best ways of getting into practice, and seems as well up in this subject as if it were a question in biology or surgery. He congratulated his audience on entering a profession in "which honest work is sure to succeed." Dr. BLANDFORD quoted ABERNETHY'S despondent dictum, "Good God! what is to become of you all?" only to express his dissent from it.

It is undoubtedly true that the members of the profession have of late increased somewhat unduly, and that, as in other callings, the pressure of competition is felt. Competition may be a good thing in trade, but in a delicate profession like ours, where the arts of competition are forbidden, it has its inconveniences, which are perhaps scarcely realised by the speakers on Thursday last. But they are not far wrong in promising success to men who work honestly and honourably. The empire is always extending its proportions, and the demands on the profession multiply accordingly. And if the estimate of what is in store in the future for medical workers contained in these addresses be but half true, the prospect is one that may well nerve them to use diligence. The estimate of what is to be achieved is soundly based on what has been achieved. We scarcely know how to select the illustrations of recent achievements from the addresses. The authors one and all seem to glow with satisfaction when they descant on the fruitful work of PASTEUR, LISTER, and others. Dr. BLANDFORD, who seems to hope that even insanity may yet turn out to be a zymotic disease, says the changes wrought recently in our views of disease are so vast and far-reaching as to be more important than the introduction of railways, telegraphs, &c. Mr. HORSLEY is so impressed with the vista opened up to physiologists and physicians by biological lights that he looks with decided want of reverence on the forty odd volumes of the pathological reports and the work they represent. For centuries, or even thousands of years, we have been staring at men dying of zymotic disease, and only now begin to see the explanation. The comfort is that the pace of progress quickens, and that workers in every branch of practice perceive that recent discoveries affect the whole field of medicine and promise illimitable reward to those who believe and will work. The physician is conscious that he can no longer look down on the surgeon who has been quick to perceive and to apply the latest teachings of science, and the general practitioner is rapidly finding that the more of special knowledge he can bring to bear on his individual cases the more will be his success in treatment and the greater his ability to hold his own with special practitioners. This is the true remedy for the evils of specialism, and was well indicated by

Mr. HORSLEY, who, after enjoining on his hearers the importance of requiring some experience in treating common diseases under the supervision of a general practitioner, most wisely advised the special study of ophthalmic diseases, nerve diseases, and gynæcological cases. So important does this seem to him that he advises the study of these diseases in the best special hospitals in London. We are opposed to the specialisation of hospitals. But we very earnestly join in recommending the special study of these groups of disease by all practitioners. Our space is gone before we have done justice to half the points raised in these addresses, which we commend individually to the consideration of students, and which make us feel that we are members of a great, living, and advancing profession indispensable to the welfare and worthy of the respect of mankind.

IT has been often urged as somewhat of a reproach to medicine that, with all the gains to knowledge of morbid processes which this century has acquired, there has been no material advance in the *cure* of disease. Nay, even those who are the most versed in pathological science would seem to be just those who are the most sceptical as to the curability of diseases by any methods of treatment. On the other hand, it cannot be gainsaid that there was never a time at which the latter were more varied or full of resource; and it is sheer exaggeration to affirm that no one of the measures suggested by modern inquiry and based on a wider insight into the processes of disease has been a material gain to the happiness and welfare of mankind. The fact is that our standpoint with respect to the *modus operandi* of all so-called curative measures is very different from that held by our forerunners. They, in ignorance of the finer details of bodily structure which have been revealed by microscopic analysis, regarded the grosser results or consequences of medication as evidence of its real efficacy in curing morbid lesions; whilst too dominated by preconceptions of the nature of disease, they considered often that it was something which had a material existence and which ought to be expelled from the body, whose functions it was deranging. Professor NOTHNAGEL, in an address[1] lately delivered before the Association of German Naturalists and Physicians, places this question upon its true foundation; and it is worth while to review his statements, since they clearly show to what extent modern medicine may claim to be the "art of healing," and in what direction its capabilities are limited. For the practice of this art, which owes its existence to the desire of humanity to escape from its inevitable heritage of pain, disease, and death, is in point of fact almost as powerless to actually cure disease as it is to prolong life beyond the allotted span. The aim of medicine really consists in averting premature death and in removing or mitigating the effects and consequences of disease. We may call this "cure," but the use of the term in this connexion is only euphemistic, as a little consideration will show. Yet advance in therapeutics, especially during the latter half of this century, has never been more considerable; new regions, as in dermatology, ophthalmology, and laryngology, have been opened up; the domain of operative surgery and gynæcology has been enormously extended; numbers of powerfully acting drugs have been added to the materia medica, and the laws of physiology, dietetics, and hygiene have been pressed into the service of the treatment of diseases. Professor NOTHNAGEL goes on to say that since the enunciation of LISTER'S "immortal" principle, and the practice based on it, and the cognate work of PASTEUR and KOCH, it would seem folly to declare that there are any limits to the art of healing, since the prospects of still greater gains in the future are so great. Verily the healing art has made great progress, and who can assert that it may not attain still higher levels.

All this is doubtless true; but when one comes to inquire what "cure" means, these advances seem to bring us no nearer than formerly to actual power in coping with disease. A cure consists in so modifying pathological processes, be they chemical or physical, functional or dynamic, as not only to arrest them, but to restore to a state of physiological and anatomical integrity the organs and tissues that have been deranged. Professor NOTHNAGEL shows by a few examples that the art of healing consists, not in any direct influence upon the organism, but rather in the endeavour to place it in the best conditions for the natural processes of repair and restitution to take place. Antiseptic surgery has done much to enable operations to be undertaken with impunity; it does not directly influence the curative processes. A tumour may be extirpated or an abscess evacuated, but the cure of one or the other ensues through the operation of the physiological properties of the living cells. The healing of gastric or intestinal ulcers may be facilitated by removal of irritants in contact with them; but it takes place apart from any direct effort on our part, whilst no art can remove a clot from the brain or restore the damaged nerve substance. From such instances of the repair of solutions of continuity he passes to the subject of inflammation, acute as well as chronic, and shows that the same reasoning holds there. Our measures do not act immediately on the morbid processes. The use of cold in acute inflammation, that of massage and electricity to "promote absorption" in chronic inflammation, are of great value in the relief of symptoms, in the removal of morbid products, &c., but are not directly *curative*. Still more evident are the limitations of the healing art in respect to degenerations and atrophy, to disorders of the blood or metabolism, and to the organic and functional affections of the nervous system. The specific diseases may be influenced in their course by symptomatic treatment, careful nutrition, and other measures; but with the exception of malaria and syphilis, and perhaps acute rheumatism, what cures are really effected by the means adopted? Indeed, in rheumatism, much as the salicyl treatment has mitigated pain and fever, it has no influence on the development of endocarditis.

Strictly speaking, even a natural cure can only take place when a morbid process is active; when it has ceased to operate its effects are mostly beyond recovery. An acute pleurisy may be cured, but old pleuritic fibrous scars cannot; an endocarditis may resolve, but valvular disease

[1] Berliner Klinische Wochenschrift, Sept. 28th, 1891.

is permanent; renal calculus may be averted by treatment in the early stages of its formation, but surgery has to be invoked to remove it when it has once formed; an ulcer of the pylorus may heal, but a contracted cicatrix persists unchanged. Many other circumstances influence the possibility of a restoration to the normal, such as the suddenness or gradual evolution of the cause of the disorder, the locality affected, the persistence of the cause, the individual proclivity or disposition of the sufferer. In all these we have conditions which are truly *incurable;* but excluding them, we dare not say that there is any limit to curability even of malignant growths. The cure—that is, the restoration to the normal—of disordered function, degraded tissue, morbid chemical and physical changes—can, however, only take place through vital organic processes; and to medicine belongs the task of determining how these processes can be best influenced—in other words, what outside support can be rendered to the "vis medicatrix naturæ." Nevertheless, certain of the drugs we employ do act directly upon the elements of the body; thus many alkaloids, and such substances as alcohol, chloroform, bromine, digitalis, influence nerve and muscle cells; pilocarpin, arsenic, and iodine affect glandular cells, and so on; yet the precise mode of their operation is unknown, and they can hardly be considered curative agents in the truest sense. It is possible that such a substance as tuberculin may have a more direct effect; but this will require much further observation. In fine, the physician has to be the servant and not the master of Nature, and by increasing knowledge of the processes and eventualities of disease he may come to understand how best to assist the natural efforts towards a maintenance of the normal equilibrium. But if he cannot directly cure disease, he can do much to protect the body against its invasion or neutralise the virus that causes it. Herein is found the application of therapeutics to bacterial diseases, as evidenced by sanitation and the procuring of immunity by vaccination—a principle doubtless applicable to numberless specific diseases. PASTEUR'S antirabic treatment goes even further, for it neutralises infection whilst in the stage of incubation. The principle of "protection" applies to other causes of disease than the bacterial—as, for instance, "chill"; whilst much has yet to be learnt of the conditions which are favourable to the onset of such affections as granular kidney and leukæmia. After all, a great deal can be done by symptomatic treatment, which has made vast strides of late, not only in relieving the sufferings of the patient, but also doubtless in expediting natural recovery. Thus, then, whilst it is folly to deplore the necessary limitations of the medical art, it is wisdom to clearly recognise them; and we may be assured that every advance in science must inevitably lead us onward in the practical application of such knowledge, and aid in furthering the great objects of our profession.

WE have more than once directed the attention of our readers to the state of medical education and of the medical colleges in the United States, and to the regulations of the schools and licensing boards of the profession. It requires but a slight acquaintance with the members of the profession in America who visit us, and with American literature and journalism, to see that there must be many sources of good medical education in the States. We are apt perhaps to be somewhat prejudiced by the newspaper accounts which reach us of fraudulent colleges and bogus degrees, and the facilities for their existence and prosperity in the very constitution and law of the States are unfortunately too great. If we refer to them, it is in no unfriendly spirit to our brethren in America. On the contrary, our exposure of them is supplementary to their own efforts in that direction. There is in the States, as we have frequently pointed out, a wide and earnest attempt to expose and remove the defects of their system, and to lift the whole standard of medical education to a European level.

We have before us a very interesting paper by SAMUEL O. L. POTTER, A.M., M.D. (Jeff.), Professor of the Principles and Practice of Medicine in the Cooper College of San Francisco, read before the forty-first annual meeting of the American Medical Association. The paper, which is headed "American *versus* European Medical Education," after comparing American medical college work with that of European medical schools, seems to be an honest endeavour to demonstrate that the result is by no means so unfavourable to the American schools as is generally assumed. Dr. POTTER is very indignant at what he calls the feeling of contempt for American medical education and persons, which, he says, so "pervades the European that, polite as he is, he is never able wholly to disguise it." He is especially angry with the action of the authorities of the medical school at Berlin in denying to American graduates studying there the right to the letters M.D. after their names. And he suggests as a punishment that American students should withdraw from Germany, and for post-graduate study visit London or Edinburgh, where he thinks they will benefit more directly than in Berlin or Vienna. But he goes further and suggests retaliatory legislation refusing recognition to foreign graduates until the American diplomas are recognised.

We sympathise with Dr. POTTER and all other earnest colleagues of his who are doing their best to put medical education on a proper footing throughout the States, and who are conscious of the disrespect which, meant for the worst American diplomas, is very apt to affect the best of them. But we venture to suggest that he will attain his object sooner, and better represent the just dignity of medical teaching authorities in the United States, by a little fuller admission of the difference between the process of medical education in the States and in European countries, and a little longer perseverance in the efforts which he and the representatives of other American schools are making to lessen that difference, which is practically admitted by himself. It is not only in details, but in the absence of a central controlling power in the States. In European countries the State acts from a centre and as a whole. In England, in addition to the central Legislature unifying medical law for England, Ireland, and Scotland, there is the General Medical Council, controlling and supervising all the medical examining boards. Dr. POTTER speaks kindly of England, and naturally looks to her for recognition. We cordially reciprocate the sentiment that the great English-speaking nations should in this, as in all matters, honour and respect each other. But he will

take it well from us, when we confess that he has not established to our satisfaction that the American is equal to the European curriculum.

In respect of the *time* required for medical education in England and the States respectively, we cannot follow him when he tells us that, inasmuch as the conjoint medical colleges of England allow a *year and a half* of the four-years' time they require to be spent in receiving instruction as a pupil of a legally qualified practitioner, thus leaving only two years and a half for school and hospital work, they do not so favourably differ from the American colleges, which always require a year's pupilage previously to their two or three years' college work. We do not find such a permission in our reading of the regulations of the English colleges. They specifically require "that not less than three winter and two summer sessions shall have been passed at one or more of the medical schools recognised by the two Colleges." We know as a matter of fact that men can only enter the profession after a preliminary examination, and that from whatever board, university, or college students in England take their qualification, they have to work four years for it in consecutive sessions, and to pass very trying examinations before they succeed. Moreover, we would remind Dr. POTTER that the General Medical Council has this year decided that the term of medical education must extend over *five* years, and has not sanctioned the use of more than six months of this time in the way of pupilage. We have said that the exposure of the defects and faults of American medical schools and boards is the work of American physicians and surgeons who are jealous of the honour of their profession, and who in many instances, as Dr. POTTER says of the President and founder of the Cooper Medical College of San Francisco, have made great sacrifices for it. He avers "that each member of his college gives ten hours a week to college work, exclusive of the hours spent in preparation, and not one draws a cent from its treasury." This is very noble, but it has no bearing on those scores of colleges which swarm in the States, whose diplomas are given after two or three years' study, and with little or no preliminary education. If anyone doubts the evil, let him invest in one of the most instructive medical publications of the world, "The Report on Medical Education of the Illinois Board of Health"—one of the States which is blessed with a Legislature that has given, as all States should give, to a medical board the power of judging diplomas and refusing recognition to unworthy ones. This report abounds in information as to the conditions of medical education in the United States and Canada, and its able compiler (Dr. RANCH) can have no interest in misrepresenting the facts. He points out that in the seven years reported on there has been very great improvement. There has been a steady rise in the number of colleges requiring proofs of preliminary education, and of colleges requiring a more extended period of medical education. There is a yearly decrease in the percentage of graduation to matriculation in the United States. Another feature of the American case is the existence of examining and licensing bodies which do not give instruction. These are all marks of an improvement which is bound to go on as public and professional opinion on the subject is strengthened. The effect of the Illinois State Board raising the minimum requirement for diplomas to be recognised in that important State was to diminish considerably the number of students and of graduates. It is inevitable that when men can get diplomas on easy terms elsewhere they will not repair willingly to those boards which exact higher terms. The great hindrances to progress in the States are the inequality of requirement and the number of schools and degree-granting bodies without central law or control. There are still 135 medical colleges of all kinds in the United States. Each State has its own medical bodies, and the powers of these vary in each State. In some, as in Illinois, there is an Act of the State empowering a medical board to grant medical qualifications. In others there is no law on the subject. In a great many States diplomas are merely registered in a County Clerk's office. In others bodies seem to form and to dissolve again or to merge into other bodies with functions of a teaching or diploma-granting kind in a most remarkable way. One has only to study the history of the schools even of a leading State to see how much too easy it is for schools to be formed. In the State of Pennsylvania, for example, where the medical faculty dates back to FRANKLIN'S time, and was chartered mainly by his influence, sixteen schools of various kinds could until lately be counted. Nine of these fortunately are extinct, some having been guilty of fraud of the worst kind. These are the evils incidental to a system of government by separate States. We rejoice at the efforts made to mitigate and remove them, and wish such endeavours all success. But it is obvious that such a loose system and one so open to abuse exists nowhere in Europe.

THE quarantine question continues to be discussed in the public press, but Mr. GUY N. STEPHEN, M.R.C.S., of the Cyprus Medical Service, the former "Quarantine,' now writes under his own name, and meets with a rejoinder from Surgeon-General CUNINGHAM. We cannot profitably discuss all the questions raised in this correspondence, but there are one or two that merit consideration. Mr. STEPHEN maintains that quarantine has not always failed to keep cholera out of Europe, and he cites the circumstance that the virulent epidemic in the Red Sea and Northern Syrian coast did not spread in 1890 in support of his statement. We have never professed to hold the view propounded by some who have studied cholera in its Indian home, to the effect that there is nothing due to quarantine, but we have yet to learn that quarantine can be proved to have stayed cholera under the circumstances of Europe. The Portuguese, for example, have claimed that they, during the last European epidemic, saved Portugal from participating in the Spanish outbreak by means of their stringent quarantine restrictions. The truth is that these restrictions were never once tested by cholera, for no person sick of cholera ever reached the frontier. Indeed such examples prove nothing at all. Then, again, Mr. STEPHEN says that the statement to the effect that quarantine retards the progress of sanitation is also one which, though conceivably true of India, is scarcely likely to find much credit amongst those who are acquainted with

the very active sanitary reforms that have been going on in Egypt and neighbouring places during the last few years, side by side with equally active quarantine. A more unfortunate example could hardly have been cited. What are the facts? Egypt, as a part of the Turkish Empire, always has been, and still is, a quarantining country, and her unhindered action in that direction remains what it was. But some years ago Egypt came under the influence of the great anti-quarantine nation, and those representing that nation were imbued with the knowledge that it was sanitation that Egypt wanted to save it from being devastated by such a disease as cholera, and measures to that effect were set on foot accordingly. It was not quarantining Egypt that instituted the "very active sanitary reforms"; it was England, the nation which had discarded quarantine as a measure that was essentially mischievous in its tendency, that set the sanitary work on foot. The counterpart of Egyptian quarantine should be looked for, not in English sanitary work at Cairo or elsewhere, but in the sanitary neglect of the remainder of the quarantining Turkish Empire. The fact remains that in Europe it is the quarantining nations—including, unfortunately, our self-governed Mediterranean colonies—that suffer from cholera, a disease which their quarantine has again and again failed to keep out. And, lastly, Mr. STEPHEN holds that there is a disposition towards the principles of quarantine in dealing with disease in this country, and he refers to action under the Notification Act at Leeds, including the detention under observation of certain persons who had been exposed to the infection of small-pox. Unless every precaution against infection is to be regarded as coming within the so-called principles of quarantine, it is difficult to understand what Mr. STEPHEN'S contention is. We know perfectly well what quarantine means. Thus, announcement is made this week to the effect that "Quarantine will be enforced at Alexandria against *all* ships arriving from Bombay." This means that quite regardless of the question of their having been exposed to any infection, whole shiploads of people and of goods will be dealt with as if they had been actually exposed to infection, and it is in this sense just the reverse of action taken in this country, where the sanitary control is limited to those who have, by dwelling within the same four walls as the infected sick, necessarily subjected themselves to infection. When some English town locks up everyone who comes from Leeds because of small-pox there, then we shall be adopting the principles of quarantine. The two systems might well have been referred to on account of their dissimilarity; they certainly have no right to be regarded as similar. And yet, says Mr. STEPHEN, such an example is "one which alone would be almost a sufficient answer to all opponents of modern quarantine." Quarantine, whether modern or ancient, is the same, and the Alexandrian telegram suffices to show what this is.

THE Special Committee of the London County Council appointed to deal with the question of the water-supply of the metropolis has prepared and issued a report on the proceedings in Parliament on the Water Bills of the last session. The points mentioned in the report will be dealt with at length in a future issue.

Annotations.

"Ne quid nimis."

DIPHTHERIA AT ESHER.

ESHER does not any more than other villages enjoy immunity from infectious diseases, and, owing to whatever cause, it would seem that another outbreak of diphtheria has made its appearance, and the circumstance has given rise in the lay press to accounts of the epidemic more or less untrustworthy. The epidemic that occurred early this year—on the occasion of which THE LANCET sent a special Commissioner to report on the sanitary condition of the village and neighbourhood, with a view of arriving at the probable cause of the outbreak—practically came to an end about the middle of April. The last death from diphtheria in that outbreak occurred about the end of April from diphtheritic paralysis. Since that date until Sept. 18th three cases occurred in persons suffering from chronic throat mischief. Then on Sept. 18th a pronounced case made its appearance at West End, Esher, and was immediately removed to the isolation hospital. Slowly but insidiously the numbers increased; and owing to the apathy of the parents of the affected children it appears that in several cases no notification was made to Dr. Gibbes, the medical officer of health of the district. He, on his visit to one of the cases, found the sick child lying on a couple of chairs in a room downstairs, in which the mother and four children were eating their midday meal, notwithstanding that this patient had been ordered to be isolated by another medical man some days previously. Other cases of a similar nature having come under the notice of Dr. Gibbes, it became necessary for him to complain, at a meeting of the Kingston-on-Thames rural sanitary authority, of the carelessness of the parents in reference to isolation. He stated that in some places many deaths had resulted from this disease, and warned the members that if such carelessness were persisted in by the inhabitants he could not answer for the result. At the same time he asked the board for power, under the 124th Section of the Public Health Act, to remove patients into the isolation hospital whenever he found that to be necessary—a request which was at once granted by the sanitary authority. On the 28th two of the children who were at dinner in the same room with the diphtheritic patient were attacked with the disease, and admitted into the isolation hospital. These incidents connected with the diphtheria outbreak at Esher will afford a strong argument in support of the wise proposal which Mr. Ritchie, the President of the Local Government Board, will think it his duty to make to Parliament very shortly—namely, that those authorities which had not adopted the Notification Act should be compelled to do so. The Act was meant to warn the community at once when any infectious disease broke out, and if this be not done efficiently, then the whole structure of the Notification Act will fall to the ground, and the community will suffer the inevitable consequences which follow the violation of hygienic laws.

"VIEWING THE BODY."

ON the 23rd inst., Mr. Brighouse, coroner for South-West Lancashire, whilst holding an inquest at Whiston, near St. Helen's, spoke in strong terms against the practice imposed by law of the jury viewing bodies. It appears that in the case in question the foreman stated he and his fellow-jurymen had been compelled to enter a house where there was infectious disease. As our readers are aware, inquests are held *super visum corporis*. In olden times,

when communication between distant places was difficult for want of the means we enjoy, no doubt the enactment may have been salutary; but even then, as it seems to us, the proof of identity by trustworthy witnesses would have been sufficient, without the compulsory viewing of frequently decomposed remains by men whose only moral duty was, as now, to give a true verdict according to their skill and ability. To most the presence of death is obnoxious; then why, in its most repulsive forms, should it be thrust on jurymen with utterly inadequate motive, to say nothing of the possible peril to health and life from the circumstances under which the inspection is imposed? We trust that coroners generally will agitate against the present practice until a much-needed reform is obtained.

CORONERS AND THE MEDICAL PROFESSION.

THE coroner of the City of Oxford has been circularising the medical profession respecting a grievance which he conceives himself to have suffered at the hands of a medical practitioner resident within his jurisdiction. His ground of offence appears to us, however, to be very small, and in no way deserving the publicity which he has claimed for it. The facts, as we collect them from the somewhat involved correspondence which he has published, are that a child in Oxford suffering from thrombosis of the leg and while under medical treatment on this account was taken by its parents to Broadstairs. During the journey embolism of the pulmonary artery supervened, producing asphyxia, and death occurred either at the Broadstairs railway station or shortly before the journey's end. A medical practitioner at Broadstairs who was summoned to attend the child very properly refused to certify to the death, but good-naturedly assisted the parents, who promptly returned to Oxford with the corpse, by acting as informant to the registrar of deaths at Broadstairs, and presenting a certificate of the cause of death from the Oxford practitioner. Everything here seems to have been done as regularly as in the circumstances it could be done, and with no less regard to public interests than to the private feelings of the parents. But in the coroner's very rhetorical review of them these figure as circumstances of grave suspicion, which should have led the Broadstairs registrar to refer the matter to the coroner. His enumeration of them is indeed sufficiently curious to merit quotation. It is as follows: "Application—a stranger being informant—nine days after death in the month of July—to register a sudden death at a railway station—removal of the body—burial without previous registration—no medical certificate from the practitioner present, nor clerical certificate of the burial—production of a certificate from a practitioner at a distance, not present at the death." When it is borne in mind that the "stranger" of this dithyrambic was the practitioner summoned at the time of death, and that the "practitioner at a distance" was the medical man who had attended during the last illness, and who was by the Registration Act required to certify to the cause of death, it will been seen that all this turmoil signifies nothing. It is eminently desirable in the public interest and in the interest of all parties that a good understanding should prevail between coroners and the medical profession generally, and, even though circular letters may not afford the best means of settling points of etiquette, we would not complain of the method adopted by the Oxford coroner for ventilating his grievance if there were substance in it.

ST. PANCRAS AND ITS SEWERS.

MR. HENRY LAZARUS, whose name is associated with useful efforts to improve sanitary administration in St. Pancras, has appealed in the columns of *The Times* for public opinion to urge the St. Pancras Vestry to come to a decision that faulty sewers in that parish should be reconstructed. Mr. Lazarus, who is a member of that body, tells the story that the chief surveyor of St. Pancras has reported that the condition of these sewers is deplorable; that a committee of the vestry, having carefully considered the whole subject, has recommended that the work be carried out; but that the vestry postpones its decision and does nothing, and in the meantime typhoid fever has attacked one at least of the inhabitants. *The Times* has strongly supported Mr. Lazarus' views, has published his letter under the heading "Bumble as a Purveyor of Typhoid Fever," and has strongly condemned the vestry in a leading article. We do not doubt that the vestry will yield to public opinion thus forcibly expressed; but public opinion of this sort is not always so easily evoked, and we may recognise, therefore, the wisdom of Mr. Ritchie in looking to an authority like the County Council for exercising a supervision over the procedure of district sanitary authorities. What the County Council will do remains to be seen, not in this particular instance, for no duty or responsibility can be held to attach to it until after Jan. 1st of next year, but after that date, when it will have powers of representation to the Local Government Board and of supercession of defaulting sanitary authorities. In the meantime, are the sewers of South St. Pancras to remain "with thick and offensive deposits," with "the drain mouths of the houses only five inches above the bottom of the sewer," "charged with solid matter to the full bore of the pipe"? We take it there is no question about the actual facts, for the vestry has made no protest against these statements, but has allowed all the world to believe that it does not think it should concern itself with these conditions. It is certainly necessary that a body dealing with London as a whole should bestir itself. Conditions in St. Pancras prejudicial to health do not concern St. Pancras alone; other districts may suffer eventually from local negligence, and other sanitary authorities, more zealous and more active, will watch the outcome of the present position with interest, if not with anxiety. For our own part we view the general interest taken in this subject with the liveliest satisfaction. Time was when no one would have cared whether local sewers were well or ill-constructed, or whether disease resulted or not. We would venture to suggest to the St. Pancras Vestry that this apathy no longer exists, and that public opinion demands that a sanitary authority shall be something more than one in name.

THREE MIDWIVES CENSURED.

A VERY painful case has been the subject of an inquest at Balderton, Notts. It was that of Mrs. Withers, forty-three years old, who had previously had five children. The child was delivered naturally, and in a short time—about half-past eight. There seems to have been difficulty in the removal of the placenta, and two other midwives were called in, but were unsuccessful. It does not appear that any of the midwives had had any special training. Then, about midnight, the midwife in charge left with the husband to go for a medical man in Newark, who had attended the patient in her first confinement. He declined to go on the score of his health, though saying that he would go if they could get no one else. He understood her to be suffering only from after-pains. They returned in the morning to say that Mrs. Withers had died before he could have got to her house. The medical man, Mr. Matterson, said he had examined the body. He removed the placenta, and said there was no reason why it should not have been removed during life. The jury thought the women should be censured, and the coroner did

censure them. He was severe in his blame of the first midwife for not sooner sending for a medical man, and for leaving the case to the other midwives. He suggested that it would be a good thing if a club could be formed in such villages, to provide funds for securing medical assistance in unusual cases of this sort. The whole case is suggestive of very painful reflections.

ALCOHOL AND THE NERVOUS SYSTEM.

IN the inaugural dissertation of Dr. Spaink of Baarn, of which a short abstract appears in the *Neurologisches Centralblatt*, an account is given of the results of certain experiments carried out with the view of testing the effect of alcohol on the peripheral nervous mechanism of rabbits. Clinically, it was found that the animals lost weight, became dull and weak, had tremor of tongue and shaking all over, and finally lapsed into a condition closely resembling delirium tremens. In the peripheral nerves examined there was found to be the usual degeneration of the medullary sheath, but there was also present a curious corkscrew or even knotted appearance of the axis cylinders, which does not seem to have been previously described. The author regards the appearance as pathological, and not due to the methods of hardening or staining.

A REMARKABLE CASE OF EMPYEMA

DR. FELIX SZONTAGH publishes in a Hungarian medical journal a remarkable case of empyema. A little girl of six years old exhibited symptoms of fever; the temperature was 99·5°. The author saw the patient two days after the commencement of the illness, and diagnosed pneumonia of the left lower lobe. Later on symptoms of pleuritic effusion became prominent, although bronchial respiration was audible over the whole half of the thorax. The apex beat was at the right border of the sternum. Nine days later on an experimental puncture was made in the sixth intercostal space in the middle axillary line. Pus was found, and the next day Dr. Verellélyi made an incision. After a discharge of three ounces of non-fetid pus a drainage-tube was inserted, the thorax washed out with a 30 per cent. tepid solution of boracic acid, and the wound dressed. So far the case presented nothing remarkable, but the author had during the operation been suprised by the relatively small quanti of pus. The state of the patient did not alter, although she was free from fever during the whole day after the operation, and the following evening the temperature had not risen higher than 101·3°. A profuse discharge of pus took place at the next dressing, so that consequently a retention of pus could not be suspected. On the third day the patient got worse and the previously existing cyanosis increased. During the next three days, however, the patient seemed to improve again, the appetite became better and her general state more satisfactory, but the examination of the chest indicated the presence of some complication. The apex beat was still in the right mamillary line, and it was suspected that independently of the first effusion a second had been formed. This suspicion became stronger on observing the remarkable dulness, especially in the upper lobe. A week after the operation on changing the dressing the secretion was most profuse, and the author concluded that two puriform cavities communicated with each other. The discharge had, however, decreased again the next day. A new experimental puncture was then made in the fourth intercostal space, and although the patient was exceedingly thin the needle had to penetrate to a depth of twenty-two millimetres before any pus was reached. A free opening which was made the next day completely justified the author's expectation, as a pint of pus was discharged. This contained no Koch's bacilli but diplococci, resembling pneumococci, partly free and partly embedded in leucocytes. The case then progressed most favourably towards recovery. When the patient was shown to the Medical Association, the left lung was not quite fully dilated, as the percussion sound was slightly muffled and the respiration in the lower posterior part of the lung weakened. The deviation is visible at the spine, but hardly present in the thorax, though the circumference of its left half is a centimetre less than that of the right. The case is remarkable for the presence of a multilocular suppurative pleurisy, the correct diagnosis made, and the perfect recovery of the patient. The author presumes that the empyema was formed at the beginning in two places, or that the separation into two cysts took place at a very early stage of the case. If the first operation had been delayed until the formation of pus had reached its maximum, the bilocular nature of the effusion might very easily have been overlooked, and the chances of a recovery considerably lessened. The author repeats his old maxim, "Ubi pus ibi evacua."

COLONIAL HOSPITAL APPOINTMENTS.

IT is a trite saying that for one who succeeds in obtaining a prize of any kind there are many who fail, and in failing look around to discover a good and satisfactory reason for their want of success. Curiously the professional superiority of the successful candidate is usually the last condition openly mentioned, while cliques and factions and underhand influences are freely referred to. No doubt the composition of the body of electors for any appointment is an interesting study, and the further it is removed from professional skill the more chance does it offer to the enterprise of those possessed of much worldly wisdom and courage with inferior qualifications. The best judges of medical qualifications and of medical testimonials are undoubtedly medical men. The prospects of the best men invariably fall as the lay element increases amongst the electors, and the trouble and expense to which all candidates are put under such conditions are matters of frequent complaint, even at home. From a lay contemporary we glean the curious conditions of appointment at the Melbourne Hospital. Four in-door physicians, four in-door surgeons, five out-door physicians, and five out-door surgeons have to be elected every four years by an electorate composed of life governors and of all those who have contributed a sum of one guinea or more three months prior to the election. The consequence is obvious. Committees are formed, and canvassers are paid to work up the votes, and there appears to be a general idea that many hundreds of dummy votes are created by individuals and by combinations of candidates. The system of election certainly periodically swells the hospital funds; but apart from this advantage it is difficult to see how it can be defended, since it is so unlikely to appeal to those in the profession who have a due regard for their credit and a praiseworthy contempt for the measures which can lead to success.

CORONERSHIP OF THE CITY OF BIRMINGHAM.

BY the death of Mr. Henry Hawkes, coroner for the city of Birmingham, an important appointment is rendered vacant. Born in 1813, Mr. Hawkes for nearly half a century took a prominent part in the public life of the city, practising as a lawyer. For sixteen years he had held the office of coroner, succeeding the late Dr. Birt Davies, who occupied the post for nearly forty years. The death of the coroner places the Town Council in a peculiar difficulty, since the office terminates with his death until a successor is appointed. It seems necessary, therefore, that the appointment of the new coroner should be promptly proceeded with. Up to the present moment the names of four candidates are mentioned for the appointment, two of

whom are solicitors and two medical men (Councillor Wilders and Mr. Oliver Pemberton). The office of coroner is one which *primâ facie* demands for its adequate fulfilment an extensive knowledge of all branches of medicine and surgery, such as can only be possessed by a medical practitioner of some standing and much experience. We have so frequently urged in the columns of THE LANCET the necessity of these appointments being held by medical men that we need not at this moment enlarge on the subject. For the purpose of deciding cases with a strictly legal bearing special legal knowledge is required; but no one who is merely a lawyer, and for the most part ignorant of medical methods, however high his legal knowledge, ought to be entrusted with the duties of an office which demands a strictly medical training. This is self-evident, and we therefore hope that in the interests of the city of Birmingham and of the community at large the choice of the City Council will fall on one having these necessary qualifications.

SMALL-POX IN THE NAVY.

IT is stated that numerous cases of small-pox have broken out on Her Majesty's ship *Collingwood*. We hope it is not true, for it is the reverse of creditable that such a thing should be possible. Formerly vaccination was very lax in the services, even "failures," being regarded as sufficing to come within the denomination of those vaccinated. But we trust such an era has passed. It cannot be difficult for the navy to keep clear of any such occurrence if successful and efficient vaccination with fresh lymph is universally insisted on as a condition of admission to the service.

THE POPE ON DUELLING.

IN an "Epistola" addressed to the German and Austro-Hungarian bishops, the Pope expatiates on the duty of putting an end to those "singularia certamina qua *duella* vocant" so scandalously frequent not only in the armies, but at the universities of the Fatherland. With trenchant logic Leo XIII. exposes the fallacy of that so-called "satisfaction" which consists in an aggrieved party's attempting to take the life of his aggressor, and taxes with equal responsibility the aiders and abettors—the seconds as well as the principals—of such encounters. "That private citizens," he says, "should individually, by the use of lethal arms, constitute themselves the vindicators of their rights or of their 'honour,' when they suppose this is violated, argues a licence more in keeping with barbarism than civilisation"—a well-merited rebuke to the nationality which justly boasts of its academic enlightenment, but which has so long allowed "Alma Mater" to be the conniving witness, if not the actual foster-mother, of the practice. His Holiness comments with just reproach on the real cowardice that, from the fear of being publicly ridiculed as wanting in "pluck," ventures on an encounter which common-sense, to say nothing of conscience, disapproves, and shows, what indeed is so admirably illustrated in the famous twenty-third chapter of "Waverley," that the real courage consists in declining the encounter. On the encouragement of duelling in the army on the ground of its keeping up the "military spirit" the Pope is not less severe, and smiles gently at the notion that the soldier who is prompt to take offence at his comrade, and ready to take his life as well, makes a more efficient defender of his country than he who respects the sanctity of life even in an honourable foe. Recognising that a well-inspired public opinion must in the last resort be the true antidote to duelling in Germany, as it is in England and English-speaking America, the Pope calls upon the Teutonic bishops to encourage anti-duelling associations among the youth of the country, inviting them "velut fœdus inter se facere, datâ fide nullo se tempore nullâque de causâ duello dimicaturos" (to form, so to speak, a confederation, and pledge themselves on no occasion and under no circumstances whatever to engage in a personal encounter). The deplorable cases of death by duelling at Würzburg and Freiburg, on which we commented last year, have apparently had little effect on the "studiosa juventus" of Germany; and exemplary as were the penalties inflicted on principals and seconds alike by the law courts, and in less degree by the university authorities, there was, it seems, still room for the Pope to give Young Germany the admonition conveyed through the well-reasoned and finely worded "Epistola" he has just addressed to its pastors and masters.

HYGIENE AND MEDICAL EDUCATION.

PROFESSOR A. ROCHE, of the Catholic University Medical School, Dublin, writes to us calling attention to the need of including some knowledge of hygiene and public health in the ordinary medical curriculum. It would, indeed, be a serious matter if this subject should become a mere specialism, and we are glad to think that in England the attendance of the general body of students on the lectures in Public Health is steadily and rapidly increasing. Where the course is made instructive, an audience is certain to be secured.

THE LATE SURGEON-GENERAL T. G. BALFOUR, M.D., A.M.D., F.R.S.

A HANDSOME brass tablet in memory of this distinguished medical officer has been recently placed in the Chapel of the Royal Victoria Hospital at Netley. It bears the badge of the Army Medical Department, together with the following inscription:—"This tablet is erected by friends and brother officers to the memory of Surgeon-General Thomas Graham Balfour, M.D., F.R.S., Q.H.P., Principal Medical Officer, Netley, from April, 1873, to May, 1874. He was an upright and honourable man, an excellent physician, able and judicious in the conduct of business, and rendered much valuable service to the State. Born 18th March, 1813. Died 17th January, 1891." The brass is exceedingly well engraved and with its colouring is very effective in appearance among the other brasses on the Chapel wall.

INSULAR SCLEROSIS AND HEMIPLEGIA.

THE case of a patient in whom this unusual combination is said to have presented itself is published in the *Journal of Nervous and Mental Diseases* by Dr. Sinkler of Philadelphia. The patient was a man of sixty-four, whose general health had been good. He had suffered from small-pox and typhus fever in childhood, and had a strong family history of phthisis. At the age of ten he began to work in a silver-plating shop, and after continuing this work for fifteen years he noticed tremor in both hands when he held up a glass. This tremor was more marked in the left hand, and ceased entirely when the hand was at rest. It was such as to incapacitate him from all work where fine movement was requisite. In September, 1889, he had an attack of left hemiplegia, with loss of consciousness. Since this attack the tremor formerly present on both sides has entirely ceased on the left. On the left side now the condition is that of ordinary hemiplegia, the leg being more affected than the arm, and the knee-jerk on this side is more active than on the right. There is well-marked coarse tremor of the right hand on exertion. This is not present during rest. There is fine tremor of the tongue, the pupils are unequal but react normally, and there is no nystagmus. The case is certainly an unusual one, but we are inclined to think that the evidence of insular sclerosis is not quite convincing. The only sign of it indeed is the tremor, and this seems to have persisted

since the age of twenty-five until the present time (a period of thirty-nine years), while there has been no other well-recognised symptom of the disease. It is also significant that for many years the patient was a worker in metals, and, considering the interesting nature of the case, it is to be regretted that fuller particulars of the condition between the age of twenty-five and that of sixty-four are not given. But whether the case is one of insular sclerosis or not (and we are far from saying that it is not), the cessation of tremor on the paralysed side is an interesting and curious phenomenon.

MEDICAL OFFICERS OF HEALTH AT HULL.

A SUCCESSFUL gathering of the Yorkshire Branch of the Society of Medical Officers of Health was held in Hull last week, under the presidency of Dr. Spottiswoode Cameron. The essential features of the gathering were an excellent opening speech by the Mayor, who gave prominence to the value of public health measures as a feature of local administration; and a paper by Dr. J. W. Mason, the medical officer of health to the borough and port of Hull, who spoke on port sanitary administration as exemplified by his own district, which constitutes the third port in England, and includes for administrative purposes the Humber as far as Goole. Dr. Mason distributed amongst the members, in an elegant form, a Synopsis of Sanitary Notes on the Town and Port of Hull.

THE SALE OF FOOD AND DRUGS ACTS.

IT appears to have been stated recently by a gentleman who addressed Mr. Plowden at the West London Police Court upon the administration of these Acts that a recent decision as to the liability of dealers in milk would render the statute almost a dead letter so far as these tradesmen are concerned. We do not know what grounds the gentleman may have for his opinion. He has certainly opened up a most important question, and the reasons that he assigns for the view which he puts forward do not impress us by their cogency. He says that if the actual seller of watered milk is to be the only person liable to the statutory penalties for its adulteration, that will signify that in London, where the chief part of the milk carrying and selling is done by lads, the magistrates will refuse to convict, presumably because of the youth of the offenders. But why a lad who is mature enough to do the work of a milk carrier should be too young to be taught to do his work honestly we cannot understand. The magistrates have no difficulty in dealing with the mischievous urchins who throw stones at trains or with the youthful criminals who pick our pockets; why their tenderness should shield from condign punishment the little culprit who dilutes our milk we wholly fail to see, and for our part we are satisfied that if the authorities charged with the administration of the Acts will be at the pains to look after the milk carriers, they will find themselves fully supported by the magisterial bench, and that the weapons which the law as it stands has put into their hands are quite sufficient for the protection of the public.

PARALYSIS FROM LIGHTNING.

A VIENNA medical journal publishes a lecture by Dr. von Limbeck before the Association of German physicians at Prague on paralysis from lightning. He commences by stating that the paralysis may be due either to rupture of tissue and apoplexy or to direct injury of the nervous system and motor apparatus. He therefore divides all cases of paralysis from lightning into spurious or indirect and true or direct paralysis. Two cases which he observed in Professor Pribram's clinic correspond with these two types. The case of indirect paralysis was that of a man sixty-seven years old, who had typical right-sided hemiplegia and motor aphasia. The case of true paralysis was that of a railway guard, who had sensory and motor paralyses of his left forearm and hand. The anæsthesia completely disappeared within three days, but the motor paralysis lasted for weeks. The case showed symptoms corresponding with a traumatic neurosis—well-defined anæsthesia of the skin of both feet, with cyanosis and hyperhydrosis and weakness of the right hand, but no loss of sight. Dr. von Limbeck separates the symptoms of true paralysis from lightning into those which are the direct results of the lightning and those which appear later and belong to a traumatic neurosis. He explains the fact that the sensory paralysis disappears in most cases much sooner than the motor paralysis by the greater effect of the injury on the muscle in its functional energy than on the peripheral nerve.

THE RAILWAY DISASTER IN SPAIN.

OF the English travellers who suffered in the recent terrible railway accident which occurred near Burgos, in Spain, Mr. Seymour Lucas experienced a fracture in the middle of the right thigh, and another in the lower third of the right leg, as well as bruises in various parts of the head and body, and especially in the left leg. But he is not in danger, and is doing well. Mr. William Cotton, who, we regret to say, has since died from the effects of his injuries, sustained a compound fracture of the right leg, and probably also of the left leg, besides severe bruises on the head and right shoulder-joint. Septic symptoms set in, the temperature rose to 105° F., and amputation of the leg became necessary. The amputation was performed by his friend, Mr. C. R. B. Keetley, who is at present in Burgos, as the only chance of saving his life, but he died in the afternoon of the same day. Professor Bannister Fletcher's son is the least injured of the four English sufferers. He had his head bruised, his forehead cut, and both his ankles sprained, one severely. Mr. Long was killed by severe injuries to his head.

THE HEALTH OF FLORENCE.

REPORTS giving an unfavourable view of the health of Florence having been for some time in circulation, the Syndic, the Marchese Torrigiani, has charged Dr. Boncinelli, the sanitary officer of the Commune, to correct these by relative statistics. From these it is ascertained that since the end of last February, by which time the typhoid fever prevailing in the winter had disappeared, the health of Florence has been exceptionally good, the death-rate lower than that of other Italian cities, particularly under the head of "Infective Disease." This gratifying result will be maintained by the vigilant attention now bestowed on the drinking water and the general sanitation of the city. The announcement cannot fail to be read with interest in the British Isles, which annually send to Florence so large a contingent of visitors, among whom, it is confidently expected, will be Mr. Gladstone in the late autumn, and Her Majesty Queen Victoria in the spring.

FIELD HOSPITALS AND MILITARY MANŒUVRES.

THE wretchedly wet weather that we have had this summer has, as everybody knows, spoilt the military manœuvres in this country. But wet or dry weather makes no difference as far as the medical service is concerned; field hospitals are apparently an unnecessary encumbrance to a manœuvring army. There were no field hospitals organised and working with the force in Hampshire. We venture to say that this is a great mistake on the part of the military authorities. Unless we strive in times of peace to put in practice all the arrangements that must obtain in time of war, we do not see how any practical efficiency

is to be attained. The knowledge of military medical matters does not come by intuition, and active service in the field is not the time or place to learn it, unless we desire to identify ourselves with failure at the outset, when the strain is greatest on all concerned. A good deal of practical information and aptitude is necessary to work a field hospital properly as a separate independent unit, and there are probably many medical officers who never saw one under such circumstances, and understand nothing of its organisation and of what would be the relations of officers and men to one another in time of war. Why should not the brigades at Aldershot be provided with field hospitals, to be exercised with a force during the autumn manœuvres, and a station hospital at that camp be used as a base hospital? Surely this not only might be done, but should be done in future.

THE SANITARY STATE OF SOUTHEND.

UNFORTUNATELY another season has gone by and the sanitary requirements of Southend remain unprovided for. The local board have more than once been advised to call in an expert in engineering in order to the preparation of a proper place for disposing of the sewage of the town; but instead of doing so, they have got their local surveyor to contrive some scheme, and have then submitted it to Mr. Mansergh, C.E. The result is that when the public inquiry came to be held last week before Mr. Thornhill Harrison, of the Local Government Board, grave fault was found with the scheme, which, it was alleged, would foul the foreshore and poison all the oysters on the neighbouring oyster beds; and it further transpired that a report had been prepared on the proposal by Dr. Thresh, and that the Local Board declined to allow this document to reach the light of day. In the end, the inspector advised the local board to reconsider the whole scheme, and he incidentally uttered a caution against the use of oysters bred on such grounds as those at Southend. Thus matters remain practically just where they have been since the sewers were credited with last year's serious outbreak of enteric fever.

FOREIGN UNIVERSITY INTELLIGENCE.

Buenos Ayres.—Dr. J. M. Trizar has been appointed Assistant Professor of Medical Chemistry.

Göttingen.—Dr. Nernet has been promoted to an Extraordinary Professorship of Physics, and has declined an invitation to migrate to Marburg.

Heidelberg.—Dr. Moos has been promoted to an honorary Professorship of Otology.

Jena.—Professor Gartner has declined an invitation to Marburg as Professor Rubner's successor.

Prague (Bohemian University).—Dr. C. Kuffner has been recognised as *privat-docent* in Mental Diseases.

Strasburg.—Drs. E. Levy and M. Schmieder have been recognised as *privat-docenten* in Medicine.

Vienna.—Dr. S. Pal has been recognised as *privat docent* in Medicine.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Karl Wedel, Professor of Histology in Vienna, of apoplexy, in his seventy-eighth year.—Dr. Karl Immanuel Klopsch, Extraordinary Professor of Surgery in Breslau, of apoplexy, in his sixty-third year.

MR. JORDAN LLOYD, M.B., M.S., F.R.C.S., has been appointed lecturer on Operative Surgery, and Mr. John Barclay, B.Sc., lecturer on Materia Medica and curator of the museum at Queen's College, Birmingham.

A RECENT discussion on goitre and cretinism in Paris revealed the fact that there are now in thirty departments of France no less than 420,000 persons suffering under the former malady, whilst cretinism is becoming more common in the Pyrenean and Alpine valleys. It was proposed that the Government should be asked to provide funds for the draining of the soil of the districts chiefly affected, and that steps should be taken to supply the inhabitants with filtered water. For the treatment of cretinism it was suggested that some of the old transport ships might be converted into naval hospitals.

SIR SOMERS VINE, hon. secretary of the National Leprosy Fund, has received a letter from the HON. Samuel Parker, Minister of Foreign Affairs, Honolulu, conveying to his Royal Highness the Prince of Wales, the President, the Executive Committee of the National Leprosy Fund, and to Sir Somers Vine himself, the most cordial thanks of the Hawaiian Government and people for the monument to be erected in memory of the late Father Damien at Molokai at the expense of the National Leprosy Fund.

MR. JONATHAN HUTCHINSON, F.R.S., will deliver an address, entitled "The Laws of Infection from a Clinical Standpoint," at the opening meeting of the Medical Society, Owens College, Manchester, on Oct. 7th, at 8 P.M.

THAMES VALLEY DRAINAGE.

OPENING OF THE RICHMOND SEWAGE WORKS.

THE inhabitants of Richmond and the adjoining parishes of Mortlake, Barnes, Kew, and Petersham are to be congratulated upon having at last succeeded in providing an effectual means for the decent disposal, at any rate, of the sewage of these places. Hitherto the sewage of Richmond and neighbourhood has been discharged in its crude state direct into the Thames, and partly retained in cesspools to the detriment of the public health. Since the passing of the Thames Navigation Act in 1866, and the Thames Conservancy Act in 1867, which prohibited the flow of sewage into the river above the western boundary of the metropolis, many attempts to grapple effectually with the question have been made, and all have met with a more or less irritating failure. The difficulty all along has been to find a suitable place whereon the sewage of Richmond could be dealt with, half of the parish consisting of Royal parks and Crown lands. Various schemes have been suggested, considered, and rejected; others have been entertained for a time, but abandoned either from failure in negotiating with landowners or from the overwhelming opposition shown by certain of the inhabitants, or from a lack of unanimity between the urban and rural sanitary and other authorities. Soon, however, after the passing of the Act of 1885, which empowered the dissolution of the joint board, representing nine districts situated partly on the Middlesex and partly on the Surrey bank, of which Richmond, urban and rural, was one, the Richmond vestry acted for itself, and accepted the proposal of Mr. J. C. Melliss, C.E., which he had brought forward in 1884. This plan provided for the collection of all the sewage of the combined district at Mortlake, and its disposal there by precipitation on fifty acres of land. The vestry provisionally adopted the plan, and invited the rural authority to join them; and in June, 1886, an agreement between the two authorities for combination for main drainage purposes was happily sealed. The works, which were opened by the President of the Local Government Board on Monday last, are situated close to the bank of the river, in the north-west portion of the parish of Mortlake. The authorities are to be commended for the excellent judgment and taste they have displayed in having the works so constructed as to interfere little with the picturesqueness of the immediate neighbourhood. The style of the handsome red brick structure is luckily not that of the ugly and unsightly factory, mills, or gas-works, which one too often sees on the banks of a river; but, on the contrary, they give

the impression on first approach of a well-appointed asylum standing in a cultivated area.

There is little that is novel in the method of treatment which has been adopted; the machinery is of the highest order and the arrangements for the collection, chemical treatment, precipitation and filtration of the sewage are such as lengthened experience has decided upon as best. The works are, in fact, a model of what precipitation works should be. The sewage is admitted in a fresh state before any decomposition has had time to take place. It is strained through an iron bar strainer before entering the pump chamber; cabbage stalks, rags, and similar articles being thus removed and daily disposed of by being dug into the gardens. In quantity this will amount to about a hundredweight per day. The strained sewage then flows continuously into the pump chamber, where it receives a small dose of milk of lime from the vats in one of the chemical mixing rooms. It is then pumped to the surface, the operation of pumping also serving to thoroughly mix the sewage and the milk of lime together. The partially treated sewage then flows from the delivery pipes of the pumps by a covered channel along the side of the pump-house. It then flows continuously to the inlet channel for treated sewage, passing in its course through a close iron bar strainer, which removes any large matter that may have passed the first strainer; also through the second chemical mixing room, where it receives a dose of a solution of sulphate of alumina, carbon, and iron, and is thoroughly mixed therewith by an agitator placed in one corner of the chemical room. The treated sewage is admitted continuously into one or more of the precipitation tanks, as required, by the opening of valves, and flows continuously over weirs extending the entire width of the tanks. As the tanks fill, precipitation takes place, the precipitate rapidly falling to the bottom of the tanks, while the effluent water, now purified, flows continuously over weirs at the other end of the tanks. This effluent water is sufficiently pure to be discharged direct into the river, and is passed thereto by the outlet provided at the north-east corner of the works. The effluent water can be raised to a higher degree of purity, whenever required, by filtration through filter beds constructed of layers of various sized gravel, sand, and carbon, the surfaces being covered with a thin layer of agricultural earth sown with grass. To the eye the effluent is bright and colourless like ordinary drinking water, but no account of its composition as determined by chemical analysis is given, nor are we told whether the water, which is alkaline, is free or not from organisms. The precipitation tanks are emptied of their entire contents once a day, and when a tank has to be emptied it is shut off from the inlet treated sewage channel by valves, and allowed a short time for repose; the water is then drawn off from the tank by a floating valve, the upper portion of the water, owing to the levels, being discharged on to the high level filter beds, and the lower portion on to the low level filter beds. The precipitate (commonly termed "sludge") at the bottom of each tank averages from two to three inches deep, being about 90 per cent. water. The water drawn off from the tanks and passed away to the filters, or the river direct, is not, however, lowered quite down to the precipitate, the water immediately overlying the sludge for a depth of six or seven inches being retained with the sludge. The bottoms of the tanks slope so as to form a channel, and the sludge and water last mentioned together gravitate, with the aid of sweeping, from the tanks into a covered sludge passage passing along their upper ends, and thence into the sludge chamber beneath the press house. In this sludge chamber precipitation still rapidly takes place, and the water which rises to the top of the sludge is drawn off, but not allowed to pass to the filter beds or the river, but flows back again into the pump chamber, mixes with the sewage, and is therewith treated over again. The quantity of water thus dealt with is comparatively very small. The sludge, having thus been deprived of some of its water in the sludge chamber and brought into a favourable condition for pressing, is lifted by pumps into iron receivers placed in the press house. Each of these receivers contains a charge for one press. In these it is limed—that is, a small quantity of lime is added to it so as to facilitate the operation of pressing, and it is forced by rams into the presses. The water pressed out of it (again a comparatively small quantity) passes to the pump chamber and mixes with the sewage to be treated over again, and the solid "sludge cakes," measuring 3 ft. square by 1½ in. in thickness, are removed from the presses. Sludge in this pressed condition occasions no nuisance whatever, it has a feeble ammoniacal odour, and may be stacked and stored without creating even an annoyance. For agricultural purposes it has a manurial value, rather higher, it is stated, than that of the best farmyard manure. This value is probably calculated upon the total amount of nitrogen it contains. It is well known that sewage cake has been practically unavailable for agricultural purposes, and at some works it is difficult to dispose of it, the authorities inviting farmers and others to take it away gratis, an opportunity which, oddly enough, is seldom appreciated. The quantity that will be produced at Mortlake from the present population will be about ten tons daily. Pressed sewage "sludge-cake," which contains about 50 per cent. of water and readily parts with such water, is said to be suitable for making up and raising low-lying land, and the board hope to be able to utilise much of it for this purpose of raising to a higher level, and thus materially improving, their own land. The entire cost of the works, including the sewers, will amount to between £115,000 and £120,000. The exact outlay has not yet been, and cannot at present be, ascertained. The annual expense of carrying on the works, including pumping the sewage, is estimated at £3500, and this, together with the repayment of capital and interest, will not, it is expected, exceed a rate of 7½*d.* in the £ for the entire cost.

After having visited the works, the company partook of luncheon in a pavilion situated in the surrounding grounds. In responding to the toast of the "Local Government Board," Mr. Ritchie, M.P., said he was quite persuaded that the works had been carried out in a very liberal manner, with a view of providing not only for the wants of the present, but for any future contingency. He hoped the example set by the local authorities of that neighbourhood would be followed by others who had been greater offenders in the matter of the pollution of the Thames. In his opinion, there was no expenditure in reason too great for a local body to incur in order to provide an efficient system of drainage. An inefficient system brought in its train disease, misery, and death; it produced a high death-rate and a lowered condition of vitality. A sanitary authority was not only not economical in refusing to spend money on making drainage and the water-supply efficient, but it was one of the most wasteful authorities, for there could be no extravagance so great as the waste of public health.

THE GERMAN EXHIBITION.

BEFORE the Exhibition at Earl's-court is closed for this year a few words will not be out of place concerning the nature of the entertainment the managers have provided for the public. Our reason for dealing with this question is based on the conviction that the exhibitions held in the grounds at Earl's-court have helped to preserve the health of Londoners. It is right and wholesome that extensive facilities for enjoyment should be provided; but, unfortunately, enjoyment in large towns is frequently attended with injury to health. The theatres, for instance, are too often overcrowded, overheated, and ill-ventilated. At Earl's-court we have had during these last few years what is equivalent to a theatre, where have been witnessed the performances of Buffalo Bill, of a Roman Triumph, of the Far East, and this year of Germania. These entertainments have a double advantage. First, though under shelter, the audience sits in the open air, and therefore does not breathe a vitiated atmosphere. Secondly, the performances are of a character calculated to engender a love of healthy and hardy exercise. Both these circumstances can but elicit the approbation of those who are concerned in maintaining the health of the people. Then the fact that each year the Exhibition gives us some insight into the characteristics of a different nation not only provides a lesson in geography to the masses, but stimulates the desire to travel; and of all the methods of enjoyment which may be resorted to in holiday time, that of travelling is among the most healthy and exhilarating. Further, these exhibitions have taught the population of London to take their pleasure out of doors, to listen to music in the open air, to partake of light refreshments in open

gardens in preference to badly ventilated restaurants. Again, the fact that so many people mingle together at these exhibitions tends to improve the taste and the manners of the lower and rougher section of the population; it brings them away from surroundings that are too frequently degrading and mischievous, and thus contributes to elevate the mind and strengthen the body.

With respect to the Exhibition held this year, we have to regret that the season has not been more favourable. Much as we approve of out-of-door gatherings, we cannot recommend out-door exposure to the rain; and we have had an exaggerated rainfall this summer. Also we must record that, in respect of those subjects in which we are especially interested, the German Exhibition has but little to show. This is all the more unfortunate as in Germany there are so many scientific, medical, and sanitary objects that are of world-wide interest. Of these we found at Earl's-court but a faint trace. Still there were a few exhibits bearing directly on public health or of special interest to the medical profession. First among these is the Nordtmeyer-Berkefeld filter, of which we have already given an account in THE LANCET of September 12th. Close by there is a very ingenious apparatus for testing adulteration in wine. If the test is really reliable it will greatly simplify the work of wine purchasers and dealers. It is a small portable instrument by which wine is captured in the lower half of a glass test-tube. The air is slightly compressed in the upper half. The test-tube is then immersed in a glass of water, and the bottom of the tube opened. If the wine is adulterated it will leave the test-tube, mix with the water, and change colour. If it is not adulterated it will remain in the tube. It is unfortunate that no scientific explanation is given as to the theory of this instrument. Tables of the specific gravity of the substances usually employed for adulterating wine would be useful to show how the instrument acts.

From Berlin the firm of David Grove exhibits toilet tables with hot and cold water laid on, so arranged that the trap below the basin, though not seen, can be easily reached in case of stoppage &c. The same exhibitor has also a grease trap, which, when full of sand or grease deposits, closes automatically, thus compelling those in charge to open and clean it. Then we have an economic method for giving spray douches in schools, barracks, &c., and an apparatus for purifying and cleaning the air before its admission into public buildings. If this latter contrivance could exclude fogs from houses, it would be highly appreciated in England. It consists simply of two rows of very woolly cloth, through which the air must pass. The cloth is wet, and therefore removes and absorbs particles in the air. Certainly air can pass through with greater facility than through cotton-wool, but is the filtering process as perfect?

Dr. Hippauf of Ostrowo exhibits an ingenious school desk and bench. The bench works on a lever which swings it near to the desk for writing and at a distance from the desk for reading, or so places the bench as to enable the pupils to stand up without leaving their seats. The bench also can be turned upwards at right angles with the floor, so as to give room for gymnastic exercises without it being necessary for the pupil to leave his place. Finally, the foot-board is easily raised to admit of the constant cleaning of the floor below. This desk is recommended by the Prussian Minister of Education, and has secured prizes at several hygienic exhibitions. German felt roofing impregnated with tar and various methods of the damp-proof course are interesting in relation to architectural hygiene; and for industrial hygiene there are the masks &c. exhibited by Carl Merg of Frankfort, which workmen wear to prevent the inhalation of poisonous dust &c. Vogel's new bottle-cleaning apparatus is likely to render service to those who dispense medicine as well as to those who bottle wine. Finally, we noted exhibits of the rival and most contradictory systems of sanitary clothing. Several firms exhibit what professes to be pure knitted woollen underclothing, and claim to carry out the principles of Dr. Jaeger of Stuttgart. But we find a rival system in Dr. Lahmann's underclothing of knitted undressed cotton, and as a compromise the combination of wool and silk introduced by Messrs. Ludwig, Maier, and Co. The conflict of theory represented by these various methods is of the utmost interest to the community, and the arguments adduced cannot be disposed of lightly. The time has come when it is necessary to ascertain, not merely the heat-conferring properties of the materials used and their freedom from injurious colouring matter, but also the material which best facilitates the elimination of the noxious exhalations escaping from the human body. If the Exhibition has served to throw any new light on this problem, it will not have been held in vain. It is in any case satisfactory to note on what high scientific grounds manufacturers of Germany seek to recommend the clothing materials to which they call attention.

There is also at the same Exhibition a large collection of beer and some mineral waters. Both if pure would be of benefit to the cause of health, and there is much to be said in favour of the lighter beers drunk in Germany. The beer gardens of Germany are in every sense far preferable to the public-houses of England; and if the German Exhibition has helped the English people to become dissatisfied with the latter, a good work has been done. Taking all these facts into consideration, it is to be hoped that next year another Exhibition will be held, though we have not yet received any announcement to that effect.

INTERNATIONAL STATISTICAL CONGRESS.

UNDER the presidency of Sir Rawson Rawson the third session of the International Statistical Congress was opened at Vienna on Sept. 28th. In his inaugural address the President said that national movements were tending more and more in the direction of fostering international concord. The existence of the Statistical Institute was in itself an illustration of this international *rapprochement*. After referring to the deaths of Sir Edwin Chadwick (one of the principal authors of sanitary reform in England), Dr. Graham Balfour (a former president of the London Royal Statistical Society), and several other eminent members of the institute who had died since the last Congress, the President said, in reference to the recent International Congress of Hygiene and Demography held in London, that the only method by which the adherents of hygiene and demographic science could obtain proof of the efficacy of their remedies, or even arrive at a solution of the problems that occupied their attention, was by means of statistics. At that Congress Dr. Longstaff, in discussing the question of parentage, had alluded to the decrease of marriages and births in England during the last decade, and had suggested the necessity for an inquiry on the subject. This, surely, was an opportunity for an international inquiry of a very special kind, such as members of this institute, who were engaged in compiling the statistics of large towns all over Europe, were eminently qualified to undertake. In conclusion, Sir Rawson Rawson dwelt upon the serious practical character of the work upon which the Congress was engaged, contending that it possessed universal interest, and merited the attention and personal coöperation of the statesmen of every country, and of all who were charged with the administration of economic or social affairs. This address, which formed the principal feature of the day's proceedings, was heartily applauded. The other business transacted was of a formal character.

On the 29th Professor Lexis (Göttingen) read a paper on the Elements of Demography, and Dr. von Mayr (Strasburg) a treatise on the Best Method of Preparing Official Statistical Publications. From the discussion which took place on the latter it was clear that the Congress entirely shared Dr. Mayr's opinion that the inadequate manner in which statistical material was at present utilised showed great disregard for the public interest. M. Manos (Athens) subsequently discussed the present condition of official statistics in Greece.

In the evening the members of the institute attended a reception given in their honour by Baron von Gautsch, Minister of Public Instruction. The gathering was an exceedingly brilliant one. Among those present were Count Kalnoky, Minister for Foreign Affairs, and several other members of the Cabinet, as well as a number of distinguished military personages, leading scientific men, and members of Parliament. All the members of the institute were introduced to the Foreign Minister by their host, Baron von Gautsch.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Enteric Fever in the Foleshill District, by Dr. PARSONS.—The periodic returns of the Registrar-General have drawn attention to an excess of enteric fever in this district, and more detailed inquiry shows that the disease has been mostly prevalent at Bedworth, where it has occurred as a succession of cases, scattered in locality and time, with occasional explosive outbursts. Dr. Parsons has formed the opinion that the scattered cases are kept up by filth in defective sewers and drains and badly kept midden privies, whereas the explosions have resulted from occasional entrance of specific infectious matter into wells; and this latter view, at least, is confirmed by the reports of Mr. John Orton, the medical officer of health. Instances of this are quoted at length in Dr. Parsons' report, and the condition of Bedworth as regards drains, sewerage, privies, &c., and the relation of these conditions to the shallow wells, which form the sole water-supply of the place, go to confirm this view. Proposals for an improved water-service have indeed been made; but since 1883 the matter has practically been allowed to rest where it was, and where it still remains. In some parts of this district improvements have been effected, and notably in one which was visited by Dr. Thorne Thorne in 1870 on account of an enteric fever prevalence, but even here the change is stated to have been brought about rather by private enterprise than as the result of action by the rural sanitary authority. The result is that in the greater part of the district a large number of amendments are called for. They are set out under seven headings, and their enumeration suffices to show how great and long-continued has been the neglect of proper sanitary administration in this district. It is to be hoped that the admitted activity of the health officer will now be recompensed by action taken on his and Dr. Parsons' advice.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Cardiff Urban and Port Districts.—On the 1890 estimate of population Dr. Edward Walford calculates the birth-rate and the death-rate for Cardiff as 39·3 and 21·1 per 1000 respectively, but on the basis of the number of inhabited houses the latter rate would be 18·7 per 1000. After dealing in considerable detail with the vital statistics, Dr. Walford gives an account of procedure under the Notification Act, which he says works satisfactorily, smoothly, and without friction. The zymotic death-rate cannot be regarded as a low one, and there are differences in the incidence of enteric fever in different parts of the borough which point to localised defects that need removal. They relate, amongst other things, to inadequate fall and flow in sewers, to old, dilapidated, and unhealthy dwellings, and the like, defects which need time for their full abatement. But, on the other hand, it is precisely in such cases that no needless loss of time should be allowed to be incurred in beginning some substantial amendment. Some action is being taken as regards houses, but so far as compulsion is concerned it was found necessary to take magisterial proceedings in only one case. On the other hand, no less than 10,347 houses were subjected to sanitary inspection. In the port district a large amount of inspection was also carried out, and a detailed account is given of the action taken in cases of sickness found on board, and needing intervention; such action including, in a number of instances, removal to the isolation hospital. The record given under the heading of "Nuisances abated" is one which, if maintained, must before long lead to a vast improvement in the sanitary circumstances under which the crews of vessels coming into Cardiff port are living.

St. Mary, Islington.—Dr. Meymott Tidy points out that the birth-rate for Islington during 1890 was only 25·6 per 1000, the lowest on record, and that the rate has been diminishing since 1868. The death-rate was 15·6 per 1000, and the increase which it exhibited is put down to the severity of the winter. The statement of the sanitary work of the year is mainly embodied in a table, but it is added that the practice of disinfecting rooms, where infectious disease has occurred, free of cost, has proved very effectual. A large number of tables are included in the report, and some account is given of the sanitary legislation of the year.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5809 births and 3428 deaths were registered during the week ending Sept. 26th. The annual rate of mortality in these towns, which had increased from 16·8 to 17·7 in the preceding three weeks, further rose last week to 19·0. The rate was 16·3 in London and 21·2 in the twenty-seven provincial towns. During the past twelve weeks of the current quarter the death-rate in the twenty-eight towns averaged 18·0 per 1000, and was considerably below the mean rate in the corresponding periods of the ten years 1881–90. The lowest rates in these towns last week were 6·9 in Halifax, 13·2 in Derby, 14·9 in Norwich, and 15·3 in Bristol; the highest rates were 26·6 in Preston, 28·3 in Wolverhampton, 29·0 in Blackburn, and 33·0 in Sunderland. The deaths referred to the principal zymotic diseases, which had been 455 and 520 in the preceding two weeks, further rose last week to 600; they included 373 from diarrhœa, 94 from whooping-cough, 41 from "fever" (principally enteric), 38 from diphtheria, 28 from measles, 26 from scarlet fever, and not one from small-pox. No fatal case of any of these diseases was registered in Halifax; in the other large towns the lowest zymotic death-rates were recorded in Bristol, Norwich, and Hull, and the highest in Preston, Bolton, Sunderland, and Wolverhampton. The greatest mortality from whooping-cough occurred in Derby, Oldham, and Plymouth; from "fever" in Sunderland; and from diarrhœa in Birmingham, Blackburn, Leicester, Sunderland, Bolton, Preston, and Wolverhampton. The mortality from measles and from scarlet fever showed no marked excess in any of the twenty-eight towns. The 38 deaths from diphtheria included 29 in London and 2 in Salford. No death from small-pox was registered in any of the twenty-eight towns; 2 cases of this disease were under treatment on Saturday last in the Highgate Small-pox Hospital, but not one in any of the Metropolitan Asylum Hospitals. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1054, against numbers increasing from 947 to 1021 on the preceding three Saturdays; the patients admitted during the week were 122, against 151 and 137 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 145 and 152 in the preceding two weeks, further rose to 182 last week, but were slightly below the average. The causes of 62, or 1·8 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Nottingham, Sunderland, Newcastle-upon-Tyne, and in four other smaller towns; the largest proportions of uncertified deaths were recorded in Huddersfield, Preston, Liverpool, and Derby.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18·7 and 15·4 per 1000 in the preceding two weeks, rose again to 18·8 during the week ending Sept. 26th, but was slightly below the mean rate that prevailed during the same period in the twenty-eight large English towns. The rates in the eight Scotch towns ranged from 16·4 in Leith and 16·5 in Edinburgh to 20·4 in Aberdeen and 25·3 in Perth. The 485 deaths in these towns showed an increase of 88 upon the number in the preceding week, and included 49 which were referred to diarrhœa, 10 to whooping-cough, 9 to scarlet fever, 8 to measles, 6 to "fever," 4 to diphtheria, and not one to small-pox. In all, 86 deaths resulted from these principal zymotic diseases, against 75 and 61 in the preceding two weeks. These 86 deaths were equal to an annual rate of 3·3 per 1000, which corresponded with the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had declined from 47 to 32 in the preceding four weeks, rose again to 49 last week, of which 18 occurred in Glasgow, 8 in Dundee, and 7 in Edinburgh. The 10 deaths from whooping-cough exceeded by 6 the low number in the previous week, and included 7 in Glasgow. The fatal cases of scarlet fever, which had risen from 2 to 8 in the preceding three weeks, further increased to 9 last week, of which 7 occurred in Glasgow. The 8 deaths from measles also exceeded those recorded in recent weeks, and included 6 in Glasgow. The 6 fatal

cases of "fever" and the 2 deaths from diphtheria were also returned in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had declined from 82 to 53 in the preceding three weeks, rose again last week to 80, but were 15 below the number in the corresponding week of last year. The causes of 38, or nearly 8 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 22·1 and 21·0 per 1000 in the preceding two weeks, rose again to 27·5 during the week ending Sept. 26th, a higher rate than in any week since the beginning of April last. During the past twelve weeks of the current quarter the death-rate in the city averaged 20·6 per 1000, the rate for the same period being 17·6 in London and 16·0 in Edinburgh. The 188 deaths in Dublin during the week under notice showed an increase of 44 upon the number in the preceding week, and included 20 which were referred to diarrhœa, 5 to whooping-cough, 3 to "fever," and not one either to small-pox, measles, scarlet fever, or diphtheria. In all, 28 deaths resulted from these principal zymotic diseases, equal to an annual rate of 4·1 per 1000, the zymotic death-rate during the same period being 2·5 in London and 2·4 in Edinburgh. The fatal cases of diarrhœa, which had been 14 in each of the preceding two weeks, rose to 20 last week. The 5 deaths referred to whooping-cough showed a further increase upon the numbers recorded in recent weeks. The fatal cases of "fever," which had been 3 and 4 in the preceding two weeks, were 3 last week. The 188 deaths in Dublin included 60 of infants under one year of age, and 36 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a marked increase upon the numbers recorded in the preceding week. Four inquest cases and 7 deaths from violence were registered; and 54, or more than a fourth, of the deaths occurred in public institutions. The causes of 25, or more than 13 per cent., of the deaths in the city were not certified.

THE SERVICES.

BRIGADE-SURGEON LIEUTENANT-COLONEL R. COLLINS has assumed the duties of Principal Medical Officer, Woolwich District, and taken over command of the 9th Division Medical Staff Corps from Surgeon-Colonel F. W. Wade, who has proceeded on leave prior to embarkation for India.

ARMY MEDICAL STAFF.—Surgeon-Colonel S. A. Lithgow, M.D., C.B., D.S.O., is about to obtain his promotion from the 16th ult., vice Surgeon-Major-General G. M. Slaughter, placed on retired pay (dated Sept. 26th, 1891). Brigade Surgeon T. O'Farrell has taken over the duties of Principal Medical Officer of the British troops in Egypt.—The following Surgeon-Majors complete next week twenty years' service, and will accordingly become entitled to promotion to the rank of Surgeon Lieutenant-Colonel:—R. V. Ash, M.B., Brighton; C. E. Dwyer, Bengal; F. E. Barrow, Hongkong; R. Blood, M.D., Winchester; H. J. W. Barrow, Bombay; W. P. Bridges, Parkhurst; R. Drury, M.D., Curragh; and W. C. Grant, M.B., Bengal.

ARMY MEDICAL SCHOOL.—Brigade Surgeon Lieutenant-Colonel Charles Henry Young Goodwin, Medical Staff, to be Professor of Clinical and Military Surgery, vice Surgeon-General Sir Thomas Longmore, Knt., F.R.C.S. Eng., C.B., Q.H.S., half-pay, who resigns that appointment (dated Oct. 1st, 1891).

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Surgeons Octavius W. Andrews, M.B., to the *Cordelia*, and Thomas C. Meikle, M.B., to the *Hecla* (both dated Sept. 29th, 1891).

VOLUNTEER CORPS.—*Artillery:* The Tynemouth (Western Division, Royal Artillery): Acting Surgeon John Francis Haswell, M.B., to be Surgeon (dated Sept. 26th, 1891).—1st West Riding of Yorkshire (Western Division, Royal Artillery): Acting Surgeon Sydney Rumboll to be Surgeon (dated Sept. 26th, 1891).—*Royal Engineers* (Submarine Miners): The Tees Division: Acting Surgeon Wm. Jones Williams, M.D., to be Surgeon (dated Sept. 26th, 1891).—*Rifle:* 2nd Volunteer Battalion, the Northumberland Fusiliers: Acting Surgeon Hugh Frazer Hurst to be Surgeon (dated Sept. 26th, 1891).

Correspondence.

"Audi alteram partem."

"RECURRENCE OF SYMPTOMS AFTER GASTRO-ENTEROSTOMY."

To the Editors of THE LANCET.

SIRS,—I hope you will spare me a little of your space to reply to Mr. Jessett's letter in your issue of Saturday last. The subject is one of such importance and seriousness that I think it should be fully discussed and every possible light thrown upon it. I feel, too, and every surgeon must feel, that what Mr. Jessett says in such a matter is worthy of most careful consideration, and as I differ from him in one or two matters, I think it all the more important to state my reasons for differing. I held, and still hold, that the recurrence of symptoms was, in my case, *most probably* due to closure of the artificial opening, and more probably from cicatricial contraction than from extension of the disease, and must insist in support of this that we have one well-authenticated and carefully reported case (Stansfield's), while I do not know of any case in which closure has been proved to be due to malignant extension, and certainly in one (one of Kilner-Clarke's) extension around the orifice did occur without closing it. I am not now able to look up all the cases published in which symptoms have recurred after several weeks or months, and in which the cause has been ascertained by post-mortem examination. Of this, though, I am certain, that they are very few; so that even though Mr. Stansfield's case stands alone, it still forms a considerable percentage of the whole number. Again, Mr. Jessett has himself acknowledged that this cicatricial contraction is a possible danger, and attached sufficient importance to it that he has even suggested means by which the ordinary operation may be modified so as to make the risk "probably nil." I, however, must pay chief attention to Mr. Jessett's main suggestion—i.e., that the contraction occurred at the opening made in the peritoneal layers of the transverse meso-colon and great omentum. This, of course, is one of the many possibilities that would come into one's mind; but I dismissed it at once from several considerations which to my mind render it highly improbable, if not quite impossible. I think that from general considerations it is highly improbable that a wide peritoneal tear, healing as it did by first intention, would give rise to cicatricial contraction. My experience of peritoneal healing is quite against this. Besides, we must not be special pleaders. What applies to one opening applies to the other. If we get contraction here, why not around the gastro enterostomy opening? Both are surrounded by peritoneal adhesions, and the latter would not all heal by first intention. In fact, we are asked to expect more cicatricial contraction in the primary union of two thin serous layers than in the healing, partially by granulation, of two mucous surfaces. The idea of kinking occurring at this site is much more tenable, only for my part I think kinking would be sudden, and the symptoms in one case took three weeks to develop. But all these considerations apart, there are facts which almost demonstrate the inaccuracy of this suggestion. If the diagram in my notes[1] be looked at, one can clearly see that we may divide the intestine into three parts: (1) Extending from the obstructed pylorus to the peritoneal opening, and consisting of all the duodenum and part of the jejunum; (2) the loop of jejunum drawn through the peritoneal opening; and (3) the rest of the intestine to the anus. Mr. Jessett will recollect that the biliary and pancreatic ducts open into part (1). Now, supposing then that there is complete obstruction at the junction of (1) and (2), the patient would practically have obstructive jaundice, but her motions were always well coloured, and she never developed any icteric tinge. Suppose, though, that the obstruction was not complete, and allowed bile to pass into section (2); and even allow that the stricture at the junction of (2) and (3), though sufficiently tight to prevent the passage of chyme, allowed enough biliary matter to pass to stain the fæces. Supposing all this, let us consider the condition of section (2); it would communicate with the stomach by the wide artificial opening, and with the intestine (3) by a narrow passage. Under these circumstances, would not the bile

[1] THE LANCET, Sept. 19th, p. 663.

chiefly pass by the wider opening into the stomach? And yet at no time was there any biliary vomit. She never vomited except after food, and then the vomit was not bile-stained. I may also add that I detected no distended intestine during the second operation. These and such considerations dismissed this and several other possibilities from my mind, and compelled me reluctantly to think that the orifice had closed.

I am, Sirs, yours very faithfully,

Liverpool, Sept. 27th, 1891. F. CHARLES LARKIN.

THE DIAGNOSIS OF HEAD INJURY FROM DRUNKENNESS.

To the Editors of THE LANCET.

SIRS,—My letter to you on the above subject, inserted in your issue of Sept. 12th, was written to call the attention of the profession to a class of head injury the effects of which it is most difficult to distinguish from those consequent on the excessive use of alcohol. They do not belong to the same category—at all events for some hours after the infliction of the injury—as those "due to pressure on the brain" alluded to by Dr. Waters in his letter of Sept. 26th, and it is because these patients are suffering from symptoms which it requires special skill to interpret rightly that the police surgeon should be called. The cases of which your correspondent writes are insensible, often stertorous, and the regulations of the force may compel those in charge of the station to summon the surgeon. I think, however, that some of the cases which I mentioned prove that too much latitude is permitted in this matter, or that the officers in charge take a long time before they act on the instructions. I have endeavoured to avoid the larger question of diagnosis in cases where the patient is already insensible. The line of treatment so successfully carried out by Dr. Waters in doubtful cases will commend itself to other surgeons.

I am, Sirs, yours truly,

Oct. 1st, 1891. WILLIAM HENRY BATTLE.

"A THEORY OF SEX."

To the Editors of THE LANCET.

SIRS,—Mr. Andrew Wilson brings forward a subject, not only of great interest, but one which it would be of great importance to have settled, upon a certain knowledge of the facts. Without entering into any discussion into the embryological point whether our ancestors were hermaphroditic, as Mr. Wilson supposes, or more likely having a common cloaca, as I suppose, the theory brought forward is supported in some points by the facts I beg to bring before you. Mr. Wilson's theory of sex does not seem to account for all the facts of the case; for instance, the occurrence of male and female in many twins, the twins being to all outward appearances of identical age and development. In this neighbourhood a very large number of dairy cattle are kept. The object of a careful dairy farmer is to keep up a constant supply of milk rather than to bring up the calves. The time of "heat" of the cow is noticed, and, if desirable, that cow is served by the bull upon the same day. This practically amounts to fertilisation of the ovum at the beginning of the menstrual epoch, with the result of a preponderance of bull calves over cow calves. One farmer, who is very careful to have his cows served upon the very same day that they "come into use," told me that he rarely had a cow calf in the whole year. I do not wish to give undue weight to these observations upon this subject; there can be no doubt of the accuracy of them, taken generally, and as such they seem to support the theory so far as they go.

I am, Sirs, yours faithfully,

J. L. KERR, M.D., C.M., F.R.S.E.

Crawshawbooth, Manchester, Sept. 28th, 1891.

To the Editors of THE LANCET.

SIRS,—Mr. Andrew Wilson has raised an "interesting and fascinating topic," and in offering for criticism a theory of sex has contributed somewhat to the elucidation of a subject which, whatever it should be, is at present shrouded in mystery, such as the "nature of liver functions or of pancreatic duties" but inadequately furnishes. Before considering the special condition—nutrition—to which Mr. Wilson attributes "the main cause of sex differentiation," let us ask whether we are justified in considering the differentiation of sex to be dependent upon conditions at all, or at all events upon scientifically discoverable conditions. While it is true that, so far as our present methods of observation have shown us, up to a certain period of intra-uterine life sex differentiation is not discoverable, and the sex of the early fœtus *may be* determined by a bias, nutritive or otherwise, we should guard against the assumption that that bias is at all dependent upon environment during any period subsequent to impregnation. Sex is a mystical problem akin to that of biogenesis, possibly dependent on and determined by the conditions of early fœtal life, possibly having its origin in those higher vital and spiritual laws that escape the ken of the scientist and discovery by the methods of research. But grant its specialisation to be resultant from material conditions, there are, as Mr. Wilson admits, many objections to the hypothesis which he proposes. One may be pardoned a little *a priori* scepticism even of theories that have a "basis of scientific nature" which require us to believe that modifications which have for their prime object reproduction should be dependent on nutrition as the one factor of import in their production. It is rather late in the day to learn that woman's weakness is responsible for and not dependent on her sex. Robust women in weakly families, and weakly men in strong families, become even greater anomalies than they were. The phases of nutritive stability may vary greatly during the different periods of development, to be sure, but at no time are they fraught with such results as when the determination of sex is impending. Should it be proved that nutrition plays so important a part in the differentiation of sex, there is still the difficulty of the relationship of ovulation to menstruation. Again, waiving the disputed point of their coincidence, what ground is there for supposing that the sojourn of the ovum in the Fallopian tube of the uterine cavity during the menstrual period is associated with a loss of vitality any more than with an increase of vigour? When has it been shown that the recently extruded ovum is in the height of its vigour? Do even analogies support the view that it is? And who is to say that the nutritive capacity of a semi-devitalised ovum may not, when impregnated, equal that of its more robust brother? Probabilities are not alone sufficient answers to these questions. The theory suggests them; let science reply. Till she has done so let us be content to acknowledge a mystery which, whether the solution be in the clouds or at our feet, is nevertheless a veritable mystery.

I am, Sirs, yours faithfully,

WILLIAM BUTLER, M.B., C.M.

Hoyland Nether, Sept. 29th, 1891.

To the Editors of THE LANCET.

SIRS,—Having read with interest Mr. Andrew Wilson's article on the above heading, I cannot refrain from making a few remarks upon it. The theory elucidated by him, as an explanation of one of the most difficult problems connected with life, is certainly in itself a very simple one. It is, that a pre-menstrual fecundation of the ovum gives rise to a male embryo, and a post-menstrual impregnation to a female one. In all forms of mammalian life below man, with the exception of some of the Simiadæ, sexual relations occur only at certain definite periods or seasons. In the large majority of cases connexion thus must take place post-menstrual, and, if there was any truth in the above theory, the result should be the almost universal production of females, with certainly in time the complete extinction of males. Passing to the civilised human animal, judging from domestic circumstances the probability is that the same state of things exists—that is, post-menstrual fecundations far exceed pre-menstrual ones. Reference is made to experiments with tadpoles, but as is well known in the case of some Amphibia, such as frogs and toads, fertilisation by the sperm cells takes place after the eggs leave the oviduct, and, in fact, as they are being extruded, and in Amblystoma punctatum, the male deposits the semen in the water, and the spermatozoa then meet with and fecundate the ova. Thus, in all of these examples, according to Mr. Andrew Wilson's theory, none but females could be produced. It appears absurd to maintain that all the vital conditions necessary for the development of a male or of a female should reside in the ovogenetic nucleo-plasm and no part be played by the sperm cell. A theory, certainly one

as well supported by facts, would be, that if the spermatozoon meets with an ovum within a given time of its discharge it gives rise to one sex, and if later to the other.

I am, Sirs, yours truly,

WALTER K. SIBLEY, M.D., M.A. Camb.

Harley-street, W.

To the Editors of THE LANCET.

SIRS,—With reference to the subject of Mr. Andrew Wilson's interesting paper, it was stated to me twelve months ago that the Jews deliberately and consciously carry out a theory of pre- and post-menstrual production of sex, possibly the purification accentuated and enlightened. Hardly warranted, however, seems the inference contained in the foot-note, that the ovum fertilised immediately after "purification" should come under the head of *succeeding* pre-menstrual product, for is it known how long the ovum may live in tube or uterus?

I am, Sirs, yours faithfully,

Leatherhead, Sept. 29th, 1891. G. HASSALL HUNTLEY.

THE USE OF ANTISEPTICS.

To the Editors of THE LANCET.

SIRS,—THE LANCET of September 12th contains a clinical lecture by Mr. Lawson Tait on surgical details, in which he alludes to antiseptics and their employment as a "strange phase of surgical eccentricity," and refers to himself as "opposed to the antiseptic doctrines and the antiseptic practice." Mr. Tait has made these statements in the capacity of a teacher of the science and art of surgery, and coming from him they must carry widespread influence. As the teaching and practice of many eminent surgeons is at this day in direct conflict with the above quotations from Mr. Tait's latest published opinions, may I ask him kindly to favour me with his views regarding the following uses of antiseptics? I will take merely one group of cases, viz., severe lacerated and contused wounds of the feet, or hands, or scalp, so often met with among the various classes of mechanics and labourers, and usually so thoroughly ingrained with dirt and grease as to defy cleansing with water alone. Mr. Tait is opposed to the frequent practice of washing the skin with turpentine and spirits and water, followed by copious flushing and scrubbing of the injured tissues with carbolic, sublimate, or other antiseptic lotions, and possibly the free use of iodoform or boracic acid inside and outside the wound, with a final dressing of antiseptic gauzes or wools and antiseptic bandages. Yet this "eccentric" treatment is followed by what are undoubtedly the best possible results—that is, by frequent union of the most severe scalp wounds by first intention in a few days, and in crushed limbs by the maximum conservatism and the absence of inflammation even in the presence of considerable areas of dead tissue which have been rendered aseptic by the treatment. Does Mr. Tait hold that provision for the free escape of discharge after copious irrigation with aseptic water is sufficient treatment for such cases, and has he known it to achieve uniformly the best results? And would he teach that the use of antiseptics, if only as an extra precaution, to ensure asepticism of these most foul wounds, is "eccentric" and unnecessary? And are his instructions as to removing "dead and dying material" from the wound compatible with the greatest possible conservatism, when the exact limits of recoverable tissue are so difficult to define? Again, in large, stinking, inflamed, and spreading ulcers the application of wet compresses of boracic lint, with or without the addition of iodoform to the surface of the sores, has been attended with gratifying results. It is a simple and easily applied treatment, suitable for general practice. How does Mr. Tait expect his pupils to treat these cases in their general practice? Since antiseptics are excluded, what methods would he advise to secure more simply the wished-for aseptic granulating surface?

Your space and Mr. Tait's time prevent me from seeking information on other points. I shall esteem it a courteous favour on Mr. Tait's part to enlighten me on these matters, and to justify his startling condemnation of "the antiseptic doctrines and the antiseptic practice" on these examples only. I am, Sirs, yours truly,

Glasgow, Sept. 21st, 1891. R. O. ADAMSON, M.B.

INTRAVENOUS INJECTION OF SALINE FLUID.

To the Editors of THE LANCET.

SIRS,—I have read with much interest Dr. B. W. Richardson's remarks in THE LANCET of Sept. 26th on the subject of intravenous injections of saline fluids in cholera. During the epidemic of 1866 I also tried this treatment in the temporary hospital formed by the St. Giles's and Bloomsbury Board of Works in St. Giles's churchyard. The fluid used was that suggested by Dr. E. A. Parkes in his classical work on cholera, and contained albumen as well as salines. The immediate effects were nothing short of marvellous. In a few minutes the writhing, cramped, icy cold, and cyanosed patient could hardly have been recognised as the same person; warmth and colour returned to the face, the hoarse whisper swelled into a natural tone of voice, the cramped limb relaxed, and the pain ceased. But, as in Dr. Richardson's practice, the relief was only temporary, the injected fluids rapidly ran away by the bowels, and the patient was soon as bad as ever. I repeated the injections in several cases until they were evidently useless, and no case recovered in which they had been used; this was also the experience of Dr. Parkes. It is but fair to say, however, that this treatment was not tried except in very bad cases. Now, in cholera there is a reason why intravenous injections should only give temporary relief; at all events, when their use has been delayed until the algide state is well developed, just as in the vital functions, as is so commonly seen in severe cases of obstetric hæmorrhage; the saline fluid being sufficient to carry on the circulation, while the unused plasma in the different organs is being utilised, and so the otherwise fatal interval may be bridged over. I am, Sirs, yours truly,

PHILIP B. MASON, M.R.C.S., F.L.S.

Burton-on-Trent, Sept., 1891.

To the Editors of THE LANCET.

SIRS,—May I be allowed to state that I have employed transfusion of "normal" saline fluid for the treatment of grave hæmorrhage occurring in the maternity of University College Hospital during the last three and a half years, the first case having occurred in April, 1888. With your permission, I hope shortly to be able to publish notes of seven cases (out of 9000 midwifery cases) in which I have employed the treatment. Believing that Mr. Lane's method is not unattended by risk, I should like to express my opinion that a simple irrigation bottle is much preferable to any kind of syringe; that "normal" saline solution is approximately of the strength of one drachm to the pint, and not twenty grains, as stated by Mr. Lane; that the rate of injection should be one pint in about ten minutes, and the temperature of the solution should be that of the blood.

I am, Sirs, yours faithfully,

Mansfield-street, W. HERBERT R. SPENCER.

*** In a note published in our last issue it will be seen that Mr. Lane has corrected his former statement with regard to the strength of the solution used.—ED. L.

THE SUGGESTED HIGHER DENTAL DIPLOMA.

To the Editors of THE LANCET.

SIRS,—There seems not the least probability that any proposition for the institution of a higher dental diploma will be entertained by the medical corporations, and there is little to be gained by discussion of a question so far outside the range of practical politics. The education for the diploma, L.D.S., if conscientiously carried out, is now well designed to produce dental practitioners admirably equipped with sufficient scientific and practical knowledge, and the examination for the diploma is gradually being made more and more stringent in enforcement of a high standard. As the science and art of dentistry advance, curriculum and examination will certainly be modified accordingly, and the licence in dental surgery will continue, as it is now, to form a guarantee so far as possible that the holder is a thoroughly qualified dental surgeon. The limits of dental science are, after all, very narrow; the subjects are well within the powers of an average student, and it would be very difficult to devise a purely dental examination of a higher level than that at present carried out at the College of Surgeons of England. The best foundation for education in any profession is general culture; the best addition

to special scientific knowledge is wide acquaintance with general science. More and more dental students are nowadays going in for degrees in arts, in medicine, and in surgery; and it seems at least doubtful if the aspirations of this class of candidate would be at all satisfied by the suggested higher dental diploma.

I am, Sirs, yours obediently,

Wimpole-street, Sept. 26th, 1891. HENRY SEWILL.

CHLOROFORM SYNCOPE.

To the Editors of THE LANCET.

SIRS,—I am much obliged to Dr. Kirk for pointing out what is a distinct omission in the account of my case of chloroform syncope, and hope you will allow me a few lines to supply the deficiency. The administration of chloroform was not discontinued until after the pupils dilated and the respiration had all but stopped. I may say that the whole occurrence did not take more than two minutes at the most from Mr. Sankey's first remark till the cessation of respiration. There were no interruptions to the administration, except that at first the patient herself removed the mask after a breath or two, being, as I explained, very excitable. The amount of chloroform used may seem large, but she took some little time before it began to affect her, holding her breath and talking, and I followed my usual practice of keeping up a continuous stream of chloroform vapour, believing as I do that the proper method of giving chloroform is to administer it freely and fully, and, in fact, to push it until anæsthesia is complete—a view which, I take it, fully corresponds with Dr. Kirk's opinions. My experience of chloroform administration, amounting now to about a thousand cases, leads me to think that three drachms of chloroform, even with Junker's inhaler, is not an extraordinary quantity to use to produce anæsthesia with a patient who, as in this case, was highly nervous and excitable.

I am, Sirs, yours faithfully,

Banbury-road, Oxford, Sept. 28th, 1891. EDWARD RICE.

INSTRUCTION IN HYGIENE.

To the Editors of THE LANCET.

SIRS,—It has been arranged to hold a preliminary meeting to secure the efficient recognition of hygiene as a compulsory subject in the curriculum for the ordinary medical degrees. The suggested resolutions include one to that effect, and the presentation of a memorial to the General Medical Council, with such other measures as may be deemed advisable. I should be glad to hear from gentlemen in the profession interested in the advance of sanitary science who may be unable to attend.

I am, Sirs, yours obediently,

ANTONY ROCHE, M.R.C.P.I., Hon. Secretary.

Harcourt-street, Dublin, Sept. 29th, 1891.

THE CONGRESS OF GERMAN NATURALISTS AND MEDICAL MEN.

(FROM OUR BERLIN CORRESPONDENT.)

THE sixty-fourth annual Congress of German Naturalists and Medical Men was opened in Halle on Sept. 21st, Professor His of Leipsic in the chair. The large hall was densely crowded, and many famous men of science were present. After a short speech from the chairman, Professor Knoblanch of Halle spoke. He referred to the meetings held in Leipsic in 1822 and in Halle in 1823, at the former of which only twenty persons were present; named the men who spoke on those occasions, and their themes, and celebrated the enormous strides science had taken since then. After speeches of welcome had been delivered by several high governmental officials, and the rector of Halle University, Professor Nothnagel of Vienna spoke on the limits of the art of healing. Illness, he said, is life under altered conditions; this dictum of Virchow's leads to the question, What is healing? The answer is: the bringing back of the altered tissues and of the disturbed functions to the normal state, the re-establishment of the healthy relation between the tasks and the performances of the organism. The possibilities of healing not only are limited, but will probably always remain so in many cases. Real healing is never effected by internal therapeutic means, but always by the organism itself. The physician is only the servant of Nature, not her master. He can support her in her conflict with the enemy, and take care that she be not hindered. But the less possible cure is seen to be, the more important becomes prevention. In the few cases in which internal remedies are applied with success against certain maladies, it is probable that success is due to the removal of the causes of the disease. In malaria, for instance, quinine cannot restore the tissues to their normal state; but it seems to render the plasmodia, the probable germs of the disease, harmless, so that the process of self-healing may go on undisturbed. But, though the healing of disease is confined to very narrow limits, and though bounds are set even to the possibility of its prevention, a wide field remains open to the healer in the combating of symptoms, and thus alleviating the patient's sufferings, preserving his power of work, and not rarely even giving the organism time and rest to heal itself. After surveying the long series of remedies introduced in recent times, the speaker expressed the hope that the healing art will go on progressing within the limits of natural law.

In the second general meeting one of the speakers was Professor Ebstein of Gottingen, who treated his theme—the Art of Prolonging Human Life—in an interesting manner, without saying anything very novel.

In the third and last public sitting Professor Ackermann of Halle spoke on Edward Jenner and the Question of Immunity. He gave a sketch of Jenner's life, and went into the history of vaccination. After all the hypotheses that have been brought forward, the explanation of the extraordinary fact of immunity, which is no longer confined to vaccination for small-pox, still remains one of the great problems of science. The speaker concluded with the remark that the 24th of May, 1896, the hundredth anniversary of the day on which Jenner performed vaccination for the first time, might well be celebrated as a day of joyful and grateful remembrance all over the world.

A disinfecting apparatus, invented by Dr. Hermann Rohrbeck of Berlin, was exhibited in the garden of the medical clinic, and attracted much attention. Its purpose is to render the flesh of locally tuberculous animals and other objectionable meat fit for human food, by subjecting it in all its parts, and within a short time, to a temperature of at least 100° C. It differs from the usual disinfectors in two respects: it lets no "dry" steam in, and it leaves no remnants of air in the interior of the disinfected articles. The latter purpose is attained by condensing the steam with which the apparatus is filled, by washing over a double cover adjusted in the boiler, a process which can be repeated *ad libitum*.

In the Section of Hygiene, Professor Lehmann of Würzburg made a highly important and astounding communication regarding the pollution of the meal of which the coarse rye-bread eaten on the Lower Rhine is baked. In the course of investigations concerning the value of a new method of husking corn, he had hit upon instances of such pollution. He procured eighty samples of flour and bread, such as are used and sold by small millers and bakers there. All of them were largely, some to an incredible extent, polluted, not only with earth, excrement of mice, and other disgusting but not exactly noxious things, but also with blighted corn, darnel, cockle, and other poisonous seeds. None of the samples were free of cockle, and in some the quantity of this ingredient exceeded 1 per cent., so that 100 grammes only of such bread would suffice to produce a poisonous effect. How many cases of gastric catarrh and other diseases, which had been attributed to every imaginable cause, might be due to nothing else than the eating of such bread? The speaker referred to the Adulteration Act, which carefully enumerates and threatens with punishment all the possible pollutions of cinnamon, pepper, and other agreeable but comparatively dispensable things, while it leaves the staple of life unmentioned. It was the duty of the police, he said, to keep a sharp eye on this nuisance, which seemed to be confined to North-west Germany, and to prosecute offenders with all rigour.

In the Section of Dentistry Professor Hollaender of Halle reported on a new anæsthetic called pental, which does not produce total unconsciousness, but only a kind of hypnosis.

In the Section of Internal Medicine Dr. P. Guttmann of Berlin reported on two typical cases of malaria which had

been cured by the internal administration of methylene blue, and Dr. Aufrecht on 112 cases of pulmonary tuberculosis treated by him with tuberculin in the Magdeburg Hospital. He stated that forty-eight patients had recovered, whilst thirty-seven had considerably, and twenty-two perceptibly, improved, while in five cases the remedy did not take effect. Hectic cases were excluded. He began with one-twentieth of a milligramme, and gradually raised the dose to five milligrammes. He injected every other day, and stopped either temporarily or altogether the moment any disturbances of the process appeared. He thinks that the fluid confers immunity on the parts round the tuberculous foci, and thus prevents the spread of the disease. Other practitioners reported similar successes, and one of them related that Koch had said to him, "The number of such reports is increasing daily, and I am still firmly convinced that my discovery is a good one."

The next year's Congress is to be at Nürnberg.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Verdict of Wilful Murder against Two Children.

A CORONER'S jury have had cast upon them the very unpleasant duty of returning a verdict of wilful murder against two boys aged respectively nine and eight; while both the city coroner and stipendiary magistrate have had the equally unpleasant duty of committing them for trial. No other course, unfortunately, was open. The body of the deceased was found in the water which had accumulated in the cellar of a partly built house. It was naked, and death was supposed to have resulted from accidental drowning. But one of the prisoners was found to be wearing the clothes of the deceased, and when pressed by his mother as to how he came by them, confessed that he and his fellow prisoner pushed the deceased into the water and kept him under the water until he was dead. Other witnesses gave evidence which went far to corroborate this statement, while the most extraordinary part of the whole sad story was that the mother of the prisoner who appropriated for his own use the deceased's clothing had locked up his clothes to prevent him going out at night and playing truant from home. This it was which induced him to commit the crime.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Society of Medical Officers of Health: Formation of a Northern Branch.

A CONFERENCE of medical officers of health of Northumberland, Cumberland, Durham, and Westmoreland has been held in the University of Durham Medical College, Newcastle, at which a northern branch was formed, comprising the above counties. Dr. H. E. Armstrong, medical officer of health, Newcastle, presided. He stated that a few years ago a northern branch was formed which did not thrive because there was no central body with which they might be connected and from which they might receive stimulus. That central body was now in existence. Since the old association was in existence sanitary work had made great strides, and the need for coöperation, for mutual counsel, and support was greater now than ever. Mr. A. E. Harris, medical officer of Sunderland, in support of the chairman, said that they too often framed minimum reports for the purpose of getting them passed; but they hoped, with the support of the Association, not to be afraid to ask for the maximum when it was necessary. Dr. Armstrong was elected President, and Dr. T. Eustace Hill of South Shields honorary secretary and treasurer.

Newcastle and its Public Parks.

It is pointed out by the *Newcastle Chronicle* that the total area of parks belonging to Newcastle, exclusive of recreation grounds, may now be said to exceed 170 acres. Previously to eighteen years ago Newcastle possessed nothing worthy of being called a park; then followed the Elswick, Heaton, and Armstrong Parks, with the munificent gift, by Sir Wm. G. (now Lord) Armstrong, of Jesmond Dene, in 1883, and lastly the West-end Park, which is the gift of Mr. Wm. Cruddas, a partner in the famous Elswick Works, and especially valuable as being in a crowded district, and the only available ground for the purpose.

Infant Mortality in Hexham.

At the last meeting of the Hexham sanitary authority Dr. Boustead, the medical officer of health, in reference to the infantile mortality of the district, stated that since the last monthly meeting there had been in one district—the Bywell—fifteen deaths of children under the age of three years, nine of which were returned as not having been attended by a medical man at all. This statement gave rise to some discussion, and Dr. Boustead promised to make further inquiries into the matter, and report thereon to a future meeting.

Another Centenarian in the North.

There died last week at Penrith Mrs. Elizabeth Denkin, who, if she had lived to Dec 21st, would have completed her 102nd year, the venerable lady having been born in 1789. The deceased was both deaf and blind, and had been of late years confined to her bed, having been waited on by a widowed daughter, who is herself considerably over seventy years of age. Mrs. Denkin was a widow for more than seventy-two years, her husband having died in 1819. She lived in humble circumstances.

Sunderland.

The *conversazione* in the Sunderland Town Hall last Monday in connexion with the Cambridge and Durham Universities extension scheme was an important gathering, and the speeches of the Bishop of Durham and the Earl of Durham were listened to with much attention. The objects of interest exhibited were varied and instructive; our own profession gave aid in microscopical and other ways, and the whole proceedings were successful and creditable to the promoters.—The deputation from the Sunderland Town Council which has been visiting the various lunatic asylums in different parts of the country in company with the Mayor has returned. The deputation visited Derby, Nottingham, Exeter, Plymouth, and the Berks County Asylum, near Reading. The deputation was impressed with the idea that before erecting a lunatic asylum in Sunderland it would be necessary to secure the advice of a competent medical superintendent, and that only architects who had gained experience in the erection of lunatic asylums should be asked to send in plans.—The secretary of the Sunderland Infirmary has received from an anonymous donor £100 for the general fund of the infirmary, and £100 for its children's wards. The same generous donor has sent £100 to the treasurer of the Monkwearmouth and Southwick Hospital.

Ambulance Demonstration at York.

On Saturday last an ambulance demonstration took place at York. The newspapers say that at least 10,000 persons were present to witness the interesting proceedings. The Hon. Mrs. Maclagan, wife of the Archbishop of York, presented the silver medals and certificates. The demonstration took a wide scope as regards accidents, showing the treatment to be first used in the case of persons falling from scaffolds, collisions in the streets, &c.

Newcastle-on-Tyne, Sept. 30th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Public Health in Glasgow: Epidemic of Enteric Fever.

IN the past fortnight there have been fourteen deaths from fever in the city, one from typhus and thirteen from enteric. The latter number has not been equalled since September, 1884. There were also eighty cases of fever registered, as compared with sixty-one in the previous fortnight—viz, 4 typhus, 72 enteric, and 4 undefined. Of these cases, ten were offshoots from a considerable epidemic of enteric fever in the village of Eaglesham, which seemed to have originated in an infected milk-supply. Among the previous fortnight's cases, three belonged to the same group, so that in this small place thirteen citizens had been infected, a number which gives some idea of the interest Glasgow has in the health of the country at large, and how much the establishment of efficient sanitary administration in the rural counties will prove to its advantage. The death-rate during the past fortnight was 19 per 1000. The hospitals for infectious diseases are more crowded just now than they have ever been, scarlet fever being the disease

most largely answerable for this. Compulsory notification also leads to cases being picked up that would formerly have escaped.

University of Glasgow.

For the Medical Preliminary Examinations, which began on Thursday, there were 308 candidates; of these, 280 attended in Glasgow and 28 at Bangor (North Wales) centre, the examinations going on simultaneously at both places. The first, second, and third professional examinations begin on Monday next and continue for a fortnight. The number of candidates is 431—viz, 155 for the first, 142 for the second, and 134 for the third. Matriculation commences on Oct. 12th, and the medical session opens on Oct. 20th with an address from Professor McKendrick.

The Alleged Illegal Traffic in Dead Bodies.

The man arrested in connexion with this matter is charged with having between Sept. 1st, 1890, and July, 1891, forged ninety-one poorhouse burial certificates and appropriated the money realised by the sale of the paupers' bodies for anatomical purposes. Another of the parochial authorities, that of the Barony parish, has been looking into the question of the disposal of the bodies of paupers who die in their institution, and finds no evidence of any irregularity or reason to interfere with the ordinary working of the Anatomy Act.

A Munificent Donation.

Miss Marjory Shanks Schaw (Glasgow) has given £40,000 as the nucleus for a convalescent home in connexion with the Glasgow Royal Infirmary.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Richmond District Lunatic Asylum.

THE inspectors of Irish Lunatic Asylums, in their recent report, draw attention to the overcrowded condition of this institution, which is situated in Dublin. They state that at their visit they found not only the dormitories too full but the corridors and day rooms converted into sleeping rooms by night and patients sleeping on the floors because no space could be found for the bedsteads. Overcrowding such as this paralyses every effort to treat the insane with due consideration for the nature of their diseases. An increase in the accommodation of the present asylum has been suggested; but the asylum is already so surrounded and overlooked by public buildings as to seriously impair its usefulness and to restrict the proper exercise of the insane. The scheme which the inspectors believe would offer the greatest scope for providing accommodation for the insane poor of the metropolis at the very cheapest rate, whilst leaving the Richmond Asylum still free to treat the acute cases requiring immediate relief, would be to erect an annexe or provincial asylum, a few miles out of Dublin, on some line of railway where a large grant of land could be obtained. This scheme would offer an additional advantage by providing a sanatorium or convalescent home for those patients in the Richmond Asylum for whom change of scene, purer air, and country surroundings might be considered advisable.

Dublin Main Drainage Scheme.

The Corporation of Dublin have appointed a special committee to deal with the subject of main drainage, and this committee have had under consideration lately a report on the matter by Mr. Chatterton of London. A subcommittee will shortly visit some of the more important works to which Mr. Chatterton has directed attention.

Queenstown Dispensary.

After repeated adjournments an election for a medical officer in the room of the late Mr. Downing took place last week. The contest was fought on the question of religion, but Mr. Hodges, who was selected, appears to have had the good claim to the post, having already served under the board for the past twelve years. A protest has been handed in by some members of the dispensary committee, who state that some members voted who were not entitled to do so.

The Case of Small-pox in Cork.

The lady suffering from small-pox who was admitted to the North Fever Hospital is progressing favourably. The scarlatina ward has been set aside for her sole use, there being no scarlatina patients at present in the hospital. The temporary timber structure erected on the grounds of the Fever Hospital during the small-pox epidemic of 1872 has not been used since then, and is altogether unfit for the accommodation of patients at present.

County Carlow Census.

The Census Commissioners have issued the first of a series of abstract reports, being that for the county Carlow. The population numbered in 1841, 86,228; in 1851, 68,078; and in 1891 it had fallen to 40,936, being 12·1 per cent. less than in 1881. As regards education, in 1881 only 56·9 per cent. could read and write. This class has increased to 66·8 per cent in 1891. The emigration statistics show a total of 29,662 for the past forty years.

Meath Hospital, Dublin.

Mr. Macnamara will on Monday next deliver the introductory address at the opening of the winter session 1891-2. In the evening the annual dinner for the reunion of past students and governors will take place at the Shelbourne Hotel.

Sept. 29th.

PARIS.

(FROM OUR OWN CORRESPONDENTS.)

Association Française pour l'Avancement des Sciences.

THE twentieth session of the above Association has been recently held at Marseilles; the scene of next year's is to be Pau. It may be useful to place on record in the pages of THE LANCET the views held on some of the subjects discussed at this important gathering. So much has been written of late on the subject of tuberculosis that I shall omit all mention of it, more particularly as no new ideas were advanced by the speakers. The following is a *résumé* of the proceedings:—

Post-eclamptic Amnesia.—M. Bidou of Marseilles contributed a paper on this phenomenon. As might be expected, puerperal eclampsia is generally productive of a certain degree of this form of intellectual trouble, the interval between the attacks being characterised by complete forgetfulness of preceding events. Gradually consciousness of existing surroundings returns, but memory remains feeble for some time, and, as in epilepsy, nothing is ever recalled in connexion with the actual attacks. Several degrees of this amnesia are met with, and they may be classified as follows: (1) A very limited hiatus in the memory, bearing upon isolated words, dates, or figures; (2) partial or complete forgetfulness of the occurrence of labour; (3) No. 2 *plus* forgetfulness of events occurring during a certain period preceding labour; (4) a still more considerable loss of memory. M. Bidou related a remarkable case coming under the last heading, the subject being a woman aged twenty-eight, married in April, 1888. Towards the end of pregnancy malleolar œdema set in. On March 16th, 1889, rupture of the membranes, followed immediately by three convulsions. Delivery two hours later, followed in a few minutes by a fourth attack, the precursor of three more. Less severe attacks occurred during the same day. In the evening albumen was discovered in the urine. The next morning the sufferer was plunged in a state of apathy, and failed to recognise any of her friends. She declared that she was not married, and says that her husband is only her *fiancé*. She had evidently forgotten all events that had occurred subsequently to her departure from under the paternal roof, and she believed that she was living in March, 1888. The amnesia, instead of being transitory, as is usually the case, lasted one year, albeit the other faculties of the patient became re-established with the cessation of the coma. Hysteria could not be taken into account as a cause of the mental trouble, the stigmata of that neurosis being absent. The eclamptic origin of the amnesia in this instance is somewhat negatived by the experience of Professor Proust,[1] who gave the details of an analogous case occurring in a woman a few days after her second (normal) confinement, uncomplicated by convulsions, albuminuria, aphasia, or paralysis. This woman had almost completely forgotten events that had passed prior to the labour, and her memory for current events had become greatly enfeebled. Seven years later, a certain amount of amnesia persisted.

The Microbian Origin of Rheumatism.—In these days of

[1] Acad. de Méd., Sept. 22nd, 1891.

advanced education, the practitioner of medicine is liable to be asked questions bearing on his art which are difficult to answer satisfactorily. One of these perplexing questions is, "What is rheumatism?" The thanks of the medical public are therefore due to those *savants* who are devoting some part of their energies to the elucidation of the cause of this very common and painful complaint. It is probable that ere long the antiquated theories now timidly advanced will be definitely overthrown in favour of the microbian, and that the nineteenth century will have one more claim to the designation conferred on it by Dandet in his new book of "Le Siècle des Microbes." Professor Bouchard has, in effect, been engaged in investigations concerning the cause of so called rheumatic arthropathies, most of the cases examined entering into the category of subacute and chronic rheumatism. With M. Chartrin, the professor has sought either in the articulation or in affected parts contiguous to it any germs that could be held responsible for the morbid changes therein discovered. In six cases out of ten the staphylococcus albus existed alone; it was associated in one instance with the S. aureus; in another with a short bacillus. Once the S. aureus was isolated, together with a new bacillus; twice cultivation experiments failed. The majority of the cultivations (cultures) were conducted on agar-agar or gelatine, in contact with air; others under sterilised oil. The professor completed his paper by the exhibition of specimens of artificially created rheumatic arthropathies produced in the lower animals by the intravenous inoculation of the above micro-organisms. In a large proportion of these experiments the bacillus pyocyanicus was employed. In a few cases, however, the introduction of the toxines secreted by the bacilli sufficed to set up a commencement of the process in the joints characteristic of rheumatism. The experimental production of these lesions requires generally a survival of one or two months or longer. In one rabbit, however, they revealed themselves in eleven days. It is interesting to note that even when the characteristic lesions are reproduced after a short interval, muscular atrophy is associated with them as in man. The frequency with which the staphylococcus albus is met with in these arthropathies leads to the belief that some connexion hitherto unsuspected exists between them and this particular micro-organism.

The Alimentary Origin of Arterio-sclerosis.—In addition to the known causes of this common condition—the specific fevers, gout, rheumatism, syphilis, alcohol, tobacco, lead—M. Huchard brings to our notice another factor—viz, excessive indulgence in animal food, or the constant ingestion of meat which is either of bad quality or is too "high." The toxic symptoms brought on by this habit—viz., vertigo, certain forms of delirium, dyspnœa—are aggravated by renal insufficiency, which, by favouring the retention of ptomaines in the system, brings on arterio-sclerosis. M. Huchard ascribes the increasing prevalence of this pathological condition to the fact that the well-to-do habitually consume too much meat, much of it being "high." Their poorer neighbours suffer similarly because the meat they consume is not freshly killed, and consequently contains a quantity of ptomaines. M. Huchard advises, then, as a precaution against the inroads of arterial degeneration, the restriction of well-cooked fresh meat to one meal a day, with the more generous use of vegetables and milk. Professor Verneuil calls attention to the observation of M. Reclus that vegetarians are less liable than meat eaters to cancer, and he strongly urges practitioners to do their utmost to restrain the consumption of nitrogenous food to a standard compatible with the excretory powers of the individual.

Some new Heart and Nerve Tonics.—Dr. Brown-Séquard's famous ellxir has been the subject of many pleasantries, but the employment as therapeutical agents of extracts of organs or animal tissues seems nevertheless to be gaining ground. In a case of heart failure, M. Onimus of Monaco has had recourse to the subcutaneous injection of an extract of heart muscle, and he claims that this novel medication determined the disappearance of the orthopnœa. The other symptoms—shortness of breath, debility—were diminished by similar injections of a glycerine extract of spinal cord. In a typical case of glosso-labio-laryngeal paralysis, which had reached the last stage, great benefit is said to have been derived from the use of these nerve extracts, and similar results are said to have been noted in cases of transverse myelitis, chronic spinal meningitis, and early locomotor ataxia. MM. Boinet and Bɔy-Teissier have been recently studying the effects on the heart of an extract of Cactus grandiflorus and of its alkaloid, cactine. Tried on frogs, guinea-pigs, and tortoises, the extract was found to increase notably the energy of the cardiac contractions, the effect being ephemeral, but readily reproduced by renewed doses. After the injection of eight or ten centigrammes the contractions were slowed and rendered arhythmic. The alkaloid cactine, injected in doses of from one to ten milligrammes, strengthened the contractions permanently, without exciting slowing or irregular action. A clinical trial has been made of a tincture of cactus, and the drug is found to act as a heart tonic in functional and organic diseases, without becoming accumulative in its effects. Large doses were given at frequent intervals (120 drops per diem).

Paris, Sept. 30th.

Obituary.

INSPECTOR-GENERAL FEGAN, C.B., R.N.

WE have to record with much regret the death of Dr. W. Henry Fegan, C.B., Inspector-General of Hospitals and Fleets, which took place on Sept. 27th last. The deceased officer was sixty years of age and had retired from the Royal Navy. Dr. Fegan was well known and had considerable reputation in the naval service. He was the senior medical officer of the naval brigade in the Ashantee War, and was very favourably mentioned in despatches and rewarded by promotion and a C.B for his services on that occasion. He served at the Royal Naval Hospital, Hong Kong, during 1857–61 (China medal and Canton clasp), and was specially recommended for promotion by the Commander-in-Chief; in the *Rodney* in 1868, in medical charge of the expedition sent to occupy Yang-Chow and mentioned in despatches; and in addition to his services in the Ashantee War, to which we have already alluded (Ashantee medal and Coomassie clasp), he was very favourably reported upon and commended for his zeal in the epidemic of yellow fever in the West Indies in 1882.

Medical News.

UNIVERSITY OF DURHAM: FACULTY OF MEDICINE.—The following candidates have received degrees &c. as indicated below:—

Degree of Doctor in Medicine for Practitioners of Fifteen Years standing.—George Bainbridge, M.R.C.P. Lond.; Edward Austin Fox, L.R.C.P., L.R.C.S. Edin.; Simon H. Hobley, L.R.C.P. Lond., M.R.C.S., L.S.A.; Herbert Alfred Lawton, M.R.C.S., L.R.C.P., D.P.H. Lond.; John Alfred Masters, M.R.C.P. Lond.; Beverley Stewart Ringer, M.R.C.S., L.S.A.; Arthur Paul Sherwood, M.R.C.S., L.R.C.P. Lond.; Herbert Smalley, M.R.C.S., L.R.C.P. Lond.; Thomas Walby, M.R.C.S., L.R.C.P. Edin.

Degree of Doctor in Medicine.—Fredk. Bass, M.B. Durh., L.R.C.P. Lond., F.R.C.S. Eng.; Chas. Gayford, M.B. Durh., M.R.C.S., L.R.C.P. Lond.; Robert Heelis, M.B. Durh., M.R.C.S., L.R.C.P. Lond.; Luigi Walter Keiffenheim, M.B., B.S. Durh., M.R.C.S., L.R.C.P. Lond.; R. Guthrie Poole Lansdowne, M.B., B.S. Durh.; Frank Winson Ramsay, M.B., B.S. Durh.; Fallon Percy Wightwick, M.B. Durh., M.R.C.S., L.R.C.P., D.P.H. Lond.

Degree of Bachelor in Medicine.—Honours (Second Class): F. Walter Gunn, M.R.C.S., L.R.C.P., L.S.A., King's College Hospital; Thos. Carr, M.R.C.S., L.S.A., Guy's Hospital; Thos. Leigh Bryan, College of Medicine, Newcastle-on-Tyne.—*Pass List*: Thos. Moffatt Allison, Robert Hodgson Cole, Charles Vincent Dingle, William James Durant, Thos. Greenwood Hall, Frederick Hunton, Jabez Percival Iredale, John Arthur Kendall, James Law, and Albert Ezra Neale, all of the College of Medicine, Newcastle-on-Tyne; Eustace Ward Powys Baines, St. George's Hospital; James Vincent Blachford, Guy's Hospital; Appu-Hennedige Charles De Silva, M.R.C.S., L.R.C.P., Ceylon Medical College; Robert Bruce Duncan and Arthur Allen Fennings, both of St. Mary's Hospital; Henry Douglas Johns, M.R.C.S., L.R.C.P. Lond., Charing cross Hospital; Chas. Mendon, Bristol Medical School; Edward Rye, Owens College, Manchester; William Rowland Thurnam and Arthur Marius Wilson, both of St. Thomas's Hospital.

Degree of Bachelor in Surgery.—Thos. Moffatt Allison, Chas. Vincent Dingle, William James Durant, Thos. Greenwood Hall, Frederick Hunton, Jabez Percival Iredale, John Arthur Kendall, James Law, and Albert Ezra Neale, all of the College of Medicine, Newcastle-on-Tyne; Eustace Ward Powys Baines, St. George's Hospital; James Vincent Blachford, Guy's Hospital; Appu-Hennedige Charles De Silva, M.R.C.S., L.R.C.P., Ceylon Medical College; Rob. Bruce Duncan and Arthur Allen Fennings, both of St. Mary's Hospital; Frank Walter Gunn, M.R.C.S., L.R.C.P., L.S.A., King's College Hospital; H. Douglas Johns, M.R.C.S., L.R.C.P. Lond., Charing

cross Hospital; William Rowland Thurnam and Arthur Marius Wilson, both of St. Thomas's Hospital.

Degree of Bachelor in Hygiene.—Thomas Buckham, M.B., B.S. Durh.; William Henry Turnbull, M B., B.S. Durh.

Licence in Sanitary Science.—Frank Walter Gunn, M.R.C.S., L.R.C.P., L.S.A.

The Gold Medal for the best Essay for the year 1891 has been awarded to Louis Robinson, M.D. Durh.; the Luke Armstrong Scholarship to Edwd. C. Willcox, M.B, B.S. Durh.; the Tulloch Scholarship to G. C. B. Kempe; the Charlton and Goyder Scholarship to W. J. Durant; and the Gibb Scholarship to Benjamin May.

PRESENTATION.—Dr. James Crevie of Foveran, Aberdeen, has been presented by the Belhelvie Ambulance Class with a handsome case of amputating instruments.

MEDICAL MAGISTRATE.—The name of John Parks, M.R.C.S, has been placed on the Commission of the Peace for the borough of Bury, Lancashire.

THE GRESHAM LECTURES.—Dr. E. Symes Thompson, Gresham Professor of Medicine, will take as the subject of his lectures to be delivered on October 6th, 7th, 8th, and 9th, 1891, "Influenza and its Results."

SMALL-POX IN MEXICO.—Advices from Campeachy (Mexico) state that there is a severe epidemic of small-pox prevailing in that town. The disease is playing havoc with the population, and is spreading.

LITERARY INTELLIGENCE.—Mr. Frederick Treves's "Operative Surgery" will be published shortly by Messrs. Cassell and Co. Professor Croom Robertson has determined, on account of his health, to retire from the editorship of *Mind*. Mr. G. F. Stout is to succeed him in charge of the periodical he has so ably conducted.

BEQUESTS AND DONATIONS TO HOSPITALS.—Mr. James Farrance, late of Ladbroke-square, Notting Hill, London, bequeathed £100 each to the St. Mary's Hospital, Paddington, and the Great Northern Central Hospital, Holloway.—The Dundee Working Men's Coffee Houses Association has given 200 guineas to endow a cot in the Children's Ward of the Royal Infirmary, Dundee.—Miss M. A. Hills, formerly of St. Margaret's Banks, Rochester, left by her will £250 to St. Bartholomew's Hospital, Rochester.

YORK MEDICAL SOCIETY.—This Society inaugurates its sixty-first session on Thursday, October 8th, when Mr. Wheelhouse, F.R.C.S., consulting surgeon to the Leeds Infirmary, will deliver an address on "Education in its Health Aspects." A dinner will be held the same evening at the Station Hotel. The Society is in a flourishing condition, and numbers seventy-seven members. It possesses an extensive library and reading-room, where the leading medical publications can be consulted, and where the ordinary meetings are held.

THE CITY OF LONDON COLLEGE.—The forty-fourth session of this excellent educational institution reopened on Oct. 1st. Classes will be conducted by Mr. J. M Ball, B.A. Lond., in Elementary Biology and in Animal Physiology, on Friday evenings throughout the session. Every effort will be made, by means of microscopical preparations, diagrams, dissections, and specimens, to make the lectures as thorough and interesting as possible. The classes will be very useful for students preparing for the intermediate in science and the preliminary scientific examinations of the University of London. W. H. Kelson, M.D. Lond., will deliver a course of lectures on the subject of Hygiene on successive Thursday evenings at 7 P.M.

METROPOLITAN ASYLUMS BOARD.—Students are informed that the next two months' course of instruction in the diagnosis and treatment of fevers will commence at the following hospitals on the undermentioned dates:—Eastern Hospital (Dr. Alexander Collie, Resident Medical Superintendent), Thursday, October 1st, at 11 A.M. North-Western Hospital (Dr. W. Gayton), Monday, Oct. 12th, at 11 A.M. Western Hospital (Mr. R. M. Bruce), Tuesday, Oct. 6th, at 11 A.M. South-Western (Dr. F. F. Caiger), Monday, Oct. 12th, at 11 A.M. South-Eastern Hospital (Dr. J. McCombie), Friday, Oct. 9th, at 11 A.M. Students desiring to attend a course of instruction are required to bring their authority from the Dean of the School to the Clerk of the Metropolitan Asylums Board, Norfolk House, Norfolk-street, Strand, W.C., on any day of the week except Saturday, between 11 A.M. and 4 P.M. The fee for the course of instruction is £3 3s.

OPEN SCHOLARSHIPS. — *St. Thomas's:* Natural Science: Mr. Arthur Henry Stewart, Scholarship of 125 guineas; Mr. Frederick Harcourt Gervis, Scholarship of £60. — *Guy's:* Arts: Mr. Gerald Burton-Brown (Cambridge), 100 guineas; Mr. Norman Lavers (Tasmania), 50 guineas.—Science: Messrs. Hugh Melton Stewart (Beckenham), Arthur George Butler (Beckenham), and Peter Henry Haylett (Cape Town), bracketed equal, and each awarded a Scholarship of £61 5s.

THE MEDICAL SCHOOLS.

THE following is a list of the scholarships and prizes awarded for the session 1890-91:—

ST. BARTHOLOMEW'S HOSPITAL.—Lawrence Scholarship and Gold Medal, T. J. Dyall; Brackenbury Medical Scholarship, C. Coles; Brackenbury Surgical Scholarship, R. Brown, W. G. Masterman; Senior Scholarship in Anatomy, Physiology, and Chemistry, J. S. Sloane; open scholarships in Science, Chemistry, and Physics, S. Gillies; Biology and Physiology, F. A. Smith and P. H. Smith, equal; junior, E. W. Groves; Preliminary Scientific Exhibition, M. G. Pearson; Jeaffreson Exhibition, G. A. C. Calvert; Kirkes Scholarship and Gold Medal, not awarded; Bentley Prize (Surgical), J. Morrison; Hichens Prize, W. J. Gillespie; Wix Prize, J. W. Pickering; Harvey Prize, F. Fraser; 2, C. P. White; 3, P. C. Barford; 4, T. Hampton; Sir George Burrows Prize, A. G. Gane; Skynner Prize, E. W. G. Masterman; Practical Anatomy (junior), Treasurer's Prize—1, J. Currie; 2, C. Calvert; 3, H. A. Hutt; 4, J. H. Hugo; 5, T. P. Legg; 6, J. H. Meacher and J. S. Stevenson, equal; 7, E. P. Turner; 8, A. Woodward; Practical Anatomy (senior), Foster Prize—1, H. R. Meakin; 2, R. Ballard; 3, T. Hampton; 4, E. R. Fox and F. C. Robinson, equal; 5, F. Fraser; 6, H. M. Pentreath; 7, S. Cornish and R. H. Wilkins, equal; Shuter Scholarship, J. G. Blandford; junior scholarships, F. A. Smith; 2, E. J. Toye; junior scholarships in Chemistry (1890)—1, W. H. Symons; 2, S. Isaake.

CHARING-CROSS HOSPITAL.—Llewellyn Scholarship—Certificate and £25, D. C. Johnston; Golding Scholarship—Certificate and £15, W. J. Robertson; Governors' Clinical Gold Medal—A. W. W. Hoffman; the Pereira Prize—Certificate and £5, H. D. Senior; Anatomy (Senior)—prize, W. J. Robertson; Anatomy (Junior)—prize, D. P. Gabell; Physiology (Senior)—prize, E. B. Jones; Physiology (Junior)—prize, G. B. Clarke; Practical Physiology—prize, W. T. White; Chemistry—prize, C. S. Reed; Practical Chemistry—prize, P. J. Probyn; Osteology—prize, S. H. Hayward; Medicine—prize, H. H. Phillips; Practical Medicine (Summer)—Certificates, Harold Gardner, W. B. Mason, S. L. J. Steggall; Practical Medicine (Winter)—prize, G. H. Hooper; Surgery—prize, S. L. J. Steggall; Minor Surgery—prize, R. W. S. Christmas; Therapeutics—prize, A. W. W. Hoffman; Materia Medica—prize, W. J. Robertson; Midwifery—prize, J. H. Day; Forensic Medicine and Toxicology—prize, A. W. W. Hoffman; Pathology—prize, Harold Gardner; Dental Surgery—first prize, certificate, and £6 6s., R. N. Gracey; second prize, certificate, and £4 4s, E. B. Jones.

GUY'S HOSPITAL.—The Treasurer's Gold Medal for Clinical Medicine, John Henry Bryant. The Treasurer's Gold Medal for Clinical Surgery, John Henry Bryant. Gurney Hoare Prize for Clinical Study, Arthur Stanley Wohlmann. Beaney Prize for Pathology, John Henry Bryant. Golding Bird Prize and Gold Medal, Alfred Theodore Rake. Michael Harris Prize for Anatomy, Guy Eugene Manning. The Arthur Durham Prizes for Dissection.—First Year's Students: James Henry Horton, prize £5; Murray Parry Jones, Charles Herbert Fagge, and Henry Alford Moffat, certificates. Second Year's Students: Charles Satchell Pantin, prize £15; Edwin Shelton Roberts, certificate. Fourth Year's Students: Thomas Benjamin Phillip Davies and Alfred Theodore Rake, equal, £17 10s. each; Arthur Mantell Daldy, certificate. Third Year's Students: Arthur John Sharp, first prize, £25; William John Johnson, second prize, £10; Francis Jordan Coleman and George Frederic Still, certificates. Second Year's Students, 1890: Arthur John Sharp, first prize, £25; Charles Satchell Pantin, second prize, £10; Frederick Gowland Hopkins, William John Johnson, and Francis Jordan Coleman, certificates. First Year's Students, 1890: Arthur Henry Leete, first prize, £50; John Alexander Howard, second prize, £25; Guy Eugene Manning and Leopold Ernest Vallentine Every-Clayton, certificates. Open Scholarships in Arts—Henry Percival Ferraby, 100 guineas; George Frederic Still, 50 guineas. Open Scholarships in Science—Francis James Steward, 125 guineas; Alfred Salter, 50 guineas.

KING'S COLLEGE.—Warneford Endowment Prizes.—Edmund Weaver Adams, William Robert Smith. Leathes Endowment Prizes.—Herbert Cumming French, George Constable Hayes. Divinity—Barry prize, Raymond Henry Crawford; prize, Henry Alfred Burridge. Anatomy—prize, Frederick John Fielder; certificates of honour, John Smedley Boden, Arthur Bousfield, equal. Physiology—prize, Frederick John Fielder; certificates of honour, Arthur Bousfield, John Smedley Boden. Chemistry—prize, John Smedley Boden. Medicine—prize, Edmund Weaver Adams; certificate of honour, Alfred Fadelle. Surgery—prize, Herbert Cumming French; special prizes, Archibald Andrew M'Kinnon, William Robert Smith, equal; certificate of honour, Edmund Weaver Adams. Clinical Surgery—prize, Ernest William James; certificate of honour, Alfred Fadelle. Comparative Anatomy and Zoology—prize, William Horace Sodeau; certificates of honour, Graham Udale Smith, Frank Charles Clifford. Gained in the Summer Session, 1891.—Tanner Prize for Obstetric Medicine—Herbert Cumming French. Forensic Medicine—prize, Herbert Cumming French; certificate of honour, Lancelot Kilroy. Materia Medica—prize, John Smedley Boden; certificate of honour, William Robert Bryett. Todd Prize for Clinical Medicine—Alfred Fadelle. Hygiene—prize, William Robert Smith; certificate of honour, Alfred Fadelle. Obstetric Medicine—prize, Herbert Cumming French; certificate of honour, John Ronaldson Russell. Pathology—prize, John Parkinson Atkinson; certificates of honour, William Robert Smith, Alfred Fadelle.

LONDON HOSPITAL.—Entrance Science Scholarships, instituted

1875, given for proficiency in the subjects required for the preliminary scientific M.B. examination at the University of London—£60 scholarship, Mr. M. Cameron; £40 scholarship, Mr. J. Haverson, Buxton Scholarships, given for proficiency in the subjects required for the preliminary examinations—£30 scholarship, Mr. W. G. Mortimer; £20 scholarship, Mr. E. H. Cooper. Clinical Medicine—£20 scholarship, given jointly by the House Committee and the Medical Council, Mr. J. Mulvany; honorary certificates, Mr. E. E. Blomfield and Mr. J. M'Neal. Clinical Surgery—£20 scholarship, given jointly by the House Committee and the Medical Council, Mr. J. Mulvany; honorary certificate, Mr. J. M'Neal. Clinical Obstetrics—£20 scholarship, given jointly by the House Committee and the Medical Council, Mr. E. E. Blomfield; honorary certificate, Mr. J. Mulvany. Duckworth Nelson Prize—£10, for practical medicine and surgery, Mr. J. Mulvany; honorary certificate, Mr. J. M'Neal. Letheby Prize—£30 prize for proficiency in chemistry, Mr. H. L. Barnard; honorary certificate, Mr. W. S. H. Sequiera. Hutchinton Prize—£35, essay on Clinical Surgery, Mr. J. Thomas. Anatomy, Physiology, and Chemistry—£25 Scholarship, given by the Medical Council, G. H. Cowen; honorary certificate, Mr. C. P. Harris. Anatomy and Physiology—£20 scholarship, given by the Medical Council, Mr. W. B. Butler; honorary certificates, Mr. M. Cameron and Mr. H. W. Grattan. Dressers' Prizes for Zeal, Efficiency, and Knowledge of Minor Surgery, given by the House Committee—£15 prizes, Mr. D. W. F. Latham and Mr. J. E. Gilbert Rogers; £10 prize, Mr. V. J. Batteson; £5 prizes, Mr. A. E. Kennedy and Mr. L. A. Smith. Practical Anatomy Prizes—£6 prize, Mr. C. P. Harris; £4 prize, Mr. A. W. Riley; £3 prize, Mr. A. D. Howard.

ST. MARY'S HOSPITAL.—1890, entrance scholarship in natural science of 100 guineas, R. W. Dodgson; 1890, entrance scholarship in natural science of 50 guineas, J. C. Smellie; 1890, exhibition scholarship in natural science of 25 guineas, S. P. James; 1890, exhibition scholarship in natural science of 25 guineas, J. E. P. Davies; 1890, University exhibition scholarship of 25 guineas, J. E. Beggs; 1890, University exhibition scholarship of 25 guineas, W. Broadbent; 1890, Epsom scholarship of value of £105, no award. Prizes.—Summer Session, 1890—Second year: Midwifery, F. J. Poynton; medical jurisprudence, J. Broadbent, J. S. Collier, equal. First year: Materia medica, W. C. Wood; botany, no competition; practical chemistry, R. H. A. Atkin and J. N. Hall, equal; histology, A. Stanley. Winter Session, 1890-91.—Third year: Medicine, J. Broadbent, B.A.; surgery, E. A. Nathan; practical surgery, E. A. Nathan and H. R. Power, equal; pathology, J. Broadbent, B.A., and E. A. Nathan, equal. Third and fourth years: prize in ophthalmology of £10 10s., H. L. Hatch; ditto, W. T. Atwool; pathology scholarships, J. O. Summerhayes and A. Senior. Second year: Anatomy, C. B. Hall; physiology, F. Chown. First year: Anatomy, A. W. Sanders; physiology, R. W. Dodgson. Special prizes, 1890.—Students of first year: for general proficiency in anatomy, physiology, materia medica, and chemistry, A. E. Wilson; students of second year: for general proficiency in anatomy, physiology, midwifery, and medical jurisprudence, J. S. Collier; students of third year: for general proficiency in medicine, surgery, pathology, and operative surgery, V. Warren Low. Prosectors, A. E. Wilson, W. C. Wood. Meadows' Memorial Prize.—E. A. Nathan (prize), J. Broadbent, B.A. (*prox. acc.*), N. E. Norway.

MIDDLESEX HOSPITAL.—Broderip Scholarships, for the best examination at the bedside and in the post-mortem room, £60, 1, A. Lawson; £40, 2, T. T. Cockill; Governors' Prize, 20 guineas, T. Carwardine; £10 Exhibition in Anatomy, 1st year, A. P. Coker; Medicine, T. Carwardine and H. W. Gibson, equal; Surgery, H. W. Gibson; Practica-Medicine and Therapeutics, H. W. Gibson; Practical Surgery, T. Carl wardine and H. W. Gibson, equal; Practical Midwifery, T. E. Lloyd; Anatomy, R. A. Young; Physiology, R. A. Young; Chemistry, C. H. J. Robinson; Hetley Prize, £25, T. Carwardine; Layell Medal, value £5 5s., T. Carwardine; Dissections, F. N. Cookson; Pathological Anatomy, W. A. Lucas and A. Baldwin, equal; Midwifery, G. S. Dodgson; Forensic Medicine, H. W. Gibson; Materia Medica, S. E. Tench; Practical Chemistry, A. C. Turner; Practical Physiology, S. E. Tench. Entrance Scholarships—£100, first, A. E. Walter; £60, second, H. P. Noble.

ST. THOMAS'S HOSPITAL.—Entrance Science Scholarships.—P. J. Dear ranks as first scholar, but had previously obtained a free admission, certificate of honour; W. E. Dixon, scholarship, 125 guineas, and certificate of honour; H. C. Crouch, scholarship, £60, and certificate of honour. First Year's Students: K. J. Previté Orton, the William Tite Scholarship, £37 10s., and certificate of honour; G. G. Genge, college prize, £20, and certificate of honour; W. H. J. Paterson, college prize, £10, and certificate of honour. Second Year's Students: S. W. F. Richardson, the Musgrove Scholarship, £38 10s., and certificate of honour; A. E. Russell, college prize, £20, and certificate of honour, and L. J. Miskin, college prize, £10, and certificate of honour, equal. Third Year's Students: E. M. Hainworth, college prize, £20, and certificate of honour; E. Smith, college prize, £15, and certificate of honour; C. Planck, college prize, £10, with second tenure of the Peacock Scholarship, and certificate of honour. Practical Medicine.—C. Latter, the Mead Medal, founded by Mr. and Mrs. Newman Smith. Surgery and Surgical Anatomy.—A. Banks, the Cheselden Medal, founded by the late Mr. George Vaughan; J. H. Fisher, special mention and certificate of honour. For General Proficiency and Good Conduct.—J. H. Fisher, the Treasurer's Gold Medal.

UNIVERSITY COLLEGE, LONDON.—Entrance Exhibitions—£100, F. W. Chandler; £50 each, equal, J. H. Cook, S. E. Shoppee. Atchison Scholarship (£60 per annum, for two years)—W. M. Stevens. Atkinson Morley Scholarship (£45 per annum, for three years)—G. F. Blacker. Bruce Medal—W. M. Stevens. Cluff Memorial Prize (£15)—F. W. Wesley. Physiology.—Senior class: gold medal, E. F. Harwood. Junior class: silver medal, J. H. Crook. Anatomy.—Senior class: gold medal, A. P. Nuttall. Junior class: silver medal, T. H. C. Stevenson. Medicine: gold medal, W. M. Stevens; first silver, W. L. Andriezen; second silver, equal, E. L. Hughes, H. M. Richards. Surgery—gold medal, W. M. Stevens; first silver, H. M. Richards; second silver, E. N. Smith. Pathology.—Practical course: Take silver medal, W. L. Andriezen; Take bronze medal, F. V. Bunch. Practical Surgery.—Erichsen prize, G. E. Newby. Clinical Medicine.—Senior class: Fellowes gold medal, W. M. Stevens; Fellowes silver medal, H. R. Smith. Junior class: Fellowes silver medal, equal, F. V. Bunch, C. G. Spencer. Clinical Surgery.—Liston gold medal, W. L. Andriezen. Clinical Dental Surgery.—Silver medal, H. R. Smith. Summer Session.—Midwifery: Senior class—gold medal, W. L. Andriezen; silver medal, E. L. Hughes. Junior class—silver medal, M. Randall. Histology and Practical Histology.—T. H. C. Stevenson. Chemistry.—Prize, G. Phillips. Practical Chemistry.—Third class, C. H. Bidwell, H. J. Price, C. C. Weekes; senior class—prize, J. E. Waite. Organic Chemistry prize, J. B. Brash. Pathology.—Filliter Exhibition of £30, F. V. Bunch; silver medal, H. A. Ballance. Clinical Medicine.—Junior class—Fellowes silver medal, S. R. Schofield.

WESTMINSTER HOSPITAL.—Honours List, 1890-91.—Entrance Scholarships—Winter: A. T. White (£80), A. H. Evans, A. J. Smith, equal (£40), G. F. S. Genge (Epsom). Summer: L. B. Betts (£40). Treasurer's Prize, for first winter subjects (value 10 guineas), R. H. Norman. President's Prize, for second-year subjects (value 20 guineas), F. K. Wilson, H. M. Dowler, M. Farrant, *prox. accesserunt*. Bird Prize and Medal (value £14), W. H. A. Tebbs. Chadwick Prize (value 20 guineas), J. B. Byles. Clinical Medicine Prize (value £5), H. H. Mills. Clinical Surgery Prize (value £5), H. A. Stonham. Class prizes and certificates—Anatomy, senior class, H. M. Dowler, M. Farrant, F. K. Wilson; junior class, R. H. Norman. Physiology, senior class, F. K. Wilson, H. M. Dowler, M. Farrant, A. W. Austin; junior class, R. H. Norman, S. G. Tippett, G. F. S. Genge. Histology, senior class, F. K. Wilson, M. Farrant, H. M. Dowler. Chemistry, junior class, R. H. Norman, A. J. Smith. Medicine, senior class, H. A. Stonham, H. H. Mills, equal (prize). Surgery, senior class, H. A. Stonham (prize). Summer Session, 1891.—Midwifery, S. A. Bull (prize). Forensic Medicine and Toxicology, S. A. Bull (prize). Pathology, S. A. Bull (prize). Histology, R. H. Norman (prize). Practical Chemistry, R. H. Norman, A. J. Smith equal (prize). Materia Medica, R. H. Norman (prize).

LONDON SCHOOL OF DENTAL SURGERY.—Prize Winners, 1890.—Saunders' Scholars', Mr. T. Coysh, Mr. A. C. Gask, Mr. W. May; Asha' Prize (given by Messrs. Ash and Sons), Mr. E. R. Bull; second prize (given by school), Mr. W. May; certificates of honour, Mr. A. C. Gask. Class Prizes, Winter Session, 1889-90.—Mechanical Dentistry: First prize, Mr. T. Coysh, Mr. C. Schelling. Metallurgy: First, Mr. A. C. Gask; second, Mr. C. Schelling. Operative Dental Surgery: First, Mr. W. May; second, Mr. E. H. L. Briault. Class Prizes, Summer Session, 1890.—Dental Surgery: First prize, Mr. T. Coysh, Mr. A. C. Gask. Dental Anatomy: First, Mr. W. May; second, Mr. T. Coysh. Students' Society Prize.—Mr. M. Woolf. Prize Winners, 1891.—Saunders' Scholar, Mr. R. M. Gracey; Asha' Prize (given by Messrs. Ash and Sons) Mr. E. Balding. Class Prizes, Winter Session, 1890-91.—Mechanical Dentistry: First prize, Mr. C. J. Allin; second prize, Mr. E. Balding; certificates, Mr. F. T. Ladmore and Mr. A. P. Spurr. Metallurgy: First prize, Mr. T. A. Coysh: second prize, Mr. R. N. Gracey. Prizes in Operative Dental Surgery.—First prize, Mr. E. Gardner; second prize, Mr. T. A. Coysh; certificate, Mr. E. Balding. Class Prizes, Summer Session, 1891.—Dental Surgery: First prize, Mr. R. N. Gracey; second prize, Mr. A. P. Spurr; certificates, Mr. S. H. Hayward, Mr. E. Balding, Mr. F. T. Trott, Mr. C. S. Reed, Mr. E. W. Harwood. Dental Anatomy: First prize, Mr. R. N. Gracey; second prize, Mr. S. H. Hayward; certificates, Mr. E. W. Harwood, Mr. C. H. Watson, Mr. E. Balding, Mr. F. T. Ladmore, and Mr. B. A. Castellote. Students' Society Prize, Mr. A. C. Gask.

NATIONAL DENTAL COLLEGE, Great Portland-street.—Honours List, 1890-91.—Bronze Medals: Dental Anatomy, Mr. Moore; Dental Surgery, Mr. Bascombe; Dental Mechanics, Mr. Moore; Metallurgy, Mr. Bascombe; Operative Dental Surgery, Mr. Moore; Dental Materia Medica, Mr. Moore; The "Rymer" Gold Medal for General Proficiency, Mr. Moore; the "Ash" Prize of Three Guineas for the Thesis on Hæmorrhage after Tooth Extraction, Mr. Arnold Prager; Entrance Exhibition of the value of £15, Mr. M'Farline; Students' Society Prize, Mr. Keele; Mechanical Work, Mr. Keele. Certificates.—Dental Anatomy, Mr. Cutts; Dental Surgery, Mr. Burbery Rowe; Dental Mechanics Mr. Prager; Metallurgy, Messrs. Johnson and Keele; Operative Dental Surgery, Mr, Bascombe; Dental Materia Medica, Mr. Prager; Elements of Histology, Mr. Bascombe.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—Winter Session, 1890-91.—Physiology: prize, Miss Corthorn and Miss M. Benson, equal; Chemistry: prize, Miss Leney; Organic Chemistry: prize, Miss S. Hughes; Anatomy, first year: prize, Miss Appel; Anatomy, second year: prize, Miss Boyle; Medicine: prize, Miss E. M. Harris; Surgery: prize, Miss Pace; Operative Midwifery: prize (five guineas given by Mr. C. H. Wood), Miss Wheeler; Stuart Mill Scholarship, Miss Bentham; School Scholarship, Miss Hull. Summer Session, 1891.—Materia Medica: prize, Miss Moffett; Practical Histology and Physiology: prize, Miss M. Bluson; Practical Chemistry: prize, Miss Yardley; Practical Organic Chemistry: prize, Miss E. Knight.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on September 29th, 1891.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	109	44	1	60	—	274	442
North-Western Hospital	230	52	..	18	..	300	411
Western "	124	21	—	6	1	149	224
South-Western "	149	18	..	11	..	178	340
South-Eastern "	176	15	1	21	3	216	462
Northern "	248	28	..	24	..	300	480
Totals	1093	178	2	140	4	1417	2359

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BIDWELL, L. A., F.R.C.S., has been appointed a Consulting Surgeon to the City Dispensary, London.

BRIDGFORD, J. S., L.R.C.P., L.R.C.S. Edin., has been appointed, *pro tem.*, Medical Officer for the Felton Sanitary District of the Alnwick Union.

DAVIES, JOHN CHARLES, L.R.C.P. Lond., M.R.C.S., L.S.A. Lond., has been appointed Medical Officer for the No. 3 District of the Wrexham Union, and Public Vaccinator for the Parish of Ruabon.

DOUGLAS, KENNETH M., M.D., F.R.C.S. Edin., has been appointed Surgical Registrar to the Royal Infirmary, Edinburgh.

FERNANDEZ, EDWARD J., L.R.C.P., L.R.C.S., has been appointed Medical Officer of Health to the Brackley Rural Sanitary Authority, vice Bradshaw, resigned.

GILLESPIE, A. L., M.B., C.M. Edin., has been appointed Medical Registrar to the Royal Infirmary, Edinburgh.

GORMAN, THOS., M.B., B.Ch. Irel., has been appointed Assistant Medical Officer to the Parish Infirmary, Brownlow-hill, Liverpool, vice Cunningham, resigned.

HART, F. J. LORIMER, M.B., C.M. Edin., has been appointed Medical Officer and Public Vaccinator for the Sydenham District of the Lewisham Union, vice W. R. Branton, M.R.C.S., resigned.

HEYWOOD, C. C., M.B., B.S. Cantab., L.R.C.P. Lond., M.R.C.S., has been appointed Junior House Surgeon to the Salford Royal Hospital, vice Lord.

HIRST, S. C., M.D. St. And., M.R.C.S., has been appointed Medical Officer for the Thirteenth Sanitary District of the North Bierley Union, vice Lambert, deceased.

JOHNSON, F., L.R.C.P. Irel., M.R.C.S., has been appointed Medical Officer for the Hedgerley Sanitary District of the Eton Union, vice Potts.

KEATS, W. J. C., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer for the Infirmary and Workhouse of the Greenwich Union, vice Dixon.

KERR, W. J., M.B., B.Ch. (Vict.), M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to St. Mary's Hospital, Manchester, and Manchester and Salford Lying-in Hospital, vice R. Alcock, resigned.

KNOWLES, F. J., L.R.C.P. Lond., M.R.C.S., has been appointed Deputy to the Public Vaccinator for the St. Helens District, Liverpool.

LLOYD, EVAN, M.B., C.M. Glasg., has been appointed Medical Officer for the Lower Sanitary District of the Tregaron Union, vice Rowland, deceased.

LORD, R. E., M.B., B.Sc. Lond., M.B., Ch.B. Vict., M.R.C.S., has been appointed Senior House Surgeon to the Salford Royal Hospital, vice Goodfellow, resigned.

MANSFIELD, GERALD, M.B., C.M. Edin., has been appointed Senior Resident Medical Officer to the London Temperance Hospital, Hampstead-road.

MORGAN, J., M.R.C.S., has been appointed Medical Officer for the Upper Sanitary District of the Tregaron Union.

MUIRHEAD, CLAUD, M.D., F.R.C.P. Edin., has been appointed Consulting Physician to the City Fever Hospital, Edinburgh.

NOLAN, LYSTER A., L.R.C.P., L.R.C.S. Irel., has been appointed Officer of Health for the Shire of Rosedale (Rosedale and Denison Ridings), Victoria, Australia, vice Waters.

PENFOLD, F. W. H., M.R.C.S., has been appointed Medical Officer for the Rainham Sanitary District of the Milton Union, vice H. Penfold, deceased.

PENNY, HENRY J., L.R.C.P., L.R.C.S. Irel., has been appointed Officer of Health for the Shire of Belfast, Victoria, Australia.

PENROSE, G. R., M.D. Heidelb., L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer for the Burton Sanitary District of the Kendal Union, vice Foster, resigned.

PORTER, THOS., M.B., B.Ch. (Vict.), has been appointed House Surgeon to the Ancoats Hospital, Manchester, vice J. Simcock, M.B.

REDDING, J. H. D., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Ramsey Sanitary District of the Huntingdon Union, vice Bates, resigned.

SIMCOCK, J., M.B., B.Ch. (Vict.), has been appointed Resident Medical Officer to the Ancoats Hospital, Manchester, vice H. T. Mursell, resigned.

SMITH, J. W., M.B. Edin., F.R.C.S. Eng., has been appointed Resident Surgical Officer to the Manchester Royal Infirmary.

TWIGG, F. G., L.S.A., has been appointed Medical Officer of Health for the Mexborough Urban Sanitary District of the Doncaster Union, vice Sykes, resigned.

WESTWOOD, H. O., L.R.C.P., L.R.C.S. Edin., has been appointed Public Vaccinator for the Bingham Sanitary District of the Bingham Union, vice Wotton, resigned.

WORBOYS, T. S., M.R.C.S., L.R.C.P., has been appointed House Physician to the Ancoats Hospital, Manchester.

YOUNGER, E. G., M.D., M.R.C.P. (late of Hanwell), has been appointed one of the Physicians to the British Hospital for Mental Disorders.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BECKENHAM LOCAL BOARD.—Medical Officer of Health for the District. Salary £125 per annum.

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester-street, S.W.—House Surgeon. Board, lodging, fuel, and light provided.

BRECON INFIRMARY.—Resident House Surgeon. Salary £70 per annum, with furnished apartments, board, attendance, fire, and gas.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House Physician for six months. No salary. Board and residence and allowance for washing.

CHELTENHAM GENERAL HOSPITAL.—House Surgeon. Salary £80 per annum, with board and apartments.

EASTERN COUNTIES' ASYLUM FOR IDIOTS, Colchester.—Resident Medical Attendant. Salary £100 per annum, with furnished apartments in the Asylum, board, and washing.

HARROW LOCAL BOARD.—Medical Officer of Health for the District. Salary at the rate of £50 a year, subject to deductions incident to the discharge of the duties of his office. (Apply to the Clerk, Harrow.)

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—Honorary Assistant Physician.

KENT COUNTY ASYLUM, Barming-heath, Maidstone.—Third Assistant Medical Officer. Salary £150 per annum, with furnished quarters, attendance, coal, gas, washing, garden produce, and milk.

KENT COUNTY ASYLUM, Barming-heath, Maidstone.—Fourth Assistant Medical Officer and Pathologist. Salary £150 per annum, with furnished quarters, attendance, coal, gas, washing, garden produce, and milk.

NOBLE'S (ISLE OF MAN) GENERAL HOSPITAL AND DISPENSARY.—Resident House Surgeon. Salary £100 per year, with apartments, gas, coal, and washing free.

PARISH OF ST. GEORGE-IN-THE-EAST.—Assistant Medical Officer for the Infirmary and Workhouse. Salary £120 per annum, with rations and apartments. (Apply to the Clerk, Guardians' Offices, Raine-street, Old Gravel-lane, E.)

ROYAL ISLE OF WIGHT INFIRMARY AND COUNTY HOSPITAL, Ryde.—House Surgeon and Secretary. Salary £60 per annum, with board, lodging, &c.

ROTHERHAM HOSPITAL.—Assistant House Surgeon. No salary. Rooms, commons, and washing provided in the Hospital.

SALFORD ROYAL HOSPITAL.—Honorary Surgeon.

SALFORD ROYAL HOSPITLL.—Honorary Medical Officer for the Pendleton Branch Dispensary.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—House Surgeon. Salary £100, with board and residence.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Assistant House Surgeon for six months. No salary. Board, lodging, and washing provided.

WEST RIDING ASYLUM, Wakefield.—Resident Clinical Assistants for six months. No salary. Board and lodging provided.

Births, Marriages, and Deaths.

BIRTHS.

BLOUNT.—On Sept. 22nd, at Denholme, Alexandra-road, Hornsey, the wife of Arthur Blount Blount, M.R.C.S., L.R.C.P., L.S.A., of a son.

BURNET.—On Sept. 28th, at Upper Wimpole-street, W., the wife of R. W. Burnet, M.D., of a son.

DAVIES.—On Sept. 27th, at Northampton House, Swansea, the wife of D. Arthur Davies, M.B. Lond., of a daughter.

EDWARDS.—On Sept. 29th, at Banbury, Oxon., the wife of Henry J. Edwards, L.R.C.P. & S. Ed., of a son.

MARRIAGES.

CAMERON—COOKE.—On Sept. 23rd, at St. Peter's, Southsea, by the Rev. G. Kennedy Cooke, brother of the bride, W. Sinclair Cameron, L.R.C.P. & S. Edin., youngest son of the late Donald Cameron, M.A., LL.D., of Liverpool, to Elizabeth Eleanor Cooke, third daughter of the late George Cooke, of Southsea.

DAVIDSON—SYKES.—On Sept. 24th, at the Parish Church, Halifax, by the Rev. J. W. Hall, M.A., LL.D., R. Rolt Davidson, B.A., M.D., B.Ch., &c., son of the late Clear Davidson, of Sunday's Well, to Emily Florence, stepdaughter of Dr. Ainley, 40, North Parade, Halifax, Yorks.

DUTT—BOOTY.—On Sept. 29th, at the Parish Church, Scarborough, Aroon Chunder Dutt, M.B. Cantab., A.K.C. Lond., of Whitby, son of H. C. Dutt, of Calcutta, to Constance Ethel, only daughter of Fredk. W. Booty, Pavilion-square, Scarborough.

LEES—WIGG.—On Sept. 23rd, at St. John's Church, Chester, William Lees, M.R.C.S., to Florence Eliza, third daughter of Charles Bird Wigg, of Hoole Bank, Chester.

STACK—EARL.—On Sept. 24th, John Joseph Stack, L.R.C.P., L.R.C.S.I., to Lillian, daughter of the late Charles Ellis Earl, Esq.

THOMAS—BAKER.—On Sept. 23rd, at the Church of St. Michael and All Angels', Heavitree, by the Rev. Sackville H. Berkeley, Vicar, assisted by the Rev. Thomas M. Clelland, John Raglan Thomas, M.D., Exeter, eldest son of the late Benjamin Thomas, F.R.C.S., of Llanelly, South Wales, to Mabel Catherine Elizabeth, eldest daughter of Robert N. G. Baker, Esq., Heavitree, Devon.

WILLANS—DENTON.—On Sept. 23rd, at the Parish Church, Sheffield, William Henry Willans, B.Sc. Lond., M.R.C.S., L.R.C.P., of Southgate, N., to Catherine Anne, only daughter of Joseph Denton, Esq., Oakholme-road, Sheffield.

DEATHS.

FEGAN.—On Sept. 27th, at Gunterstone-road, W., Henry Fegan, M.D., C.B., Inspector-General of Hospitals and Fleets, Retired, aged 60.

HUMPHREYS.—On Sept. 24th, at Swan Hill Court House, Shrewsbury, John Robert Humphreys, F.R.C.S., aged 66.

WALTON.—On Sept. 22nd, at Winchmore-hill, George Augustus Turner Walton, M.R.C.S., second son of the late Henry Haynes Walton, F.R.C.S., aged 34.

WRIGHT.—On Aug. 20th, at Hobart, Tasmania, Robert Wright, Royal Navy, Assistant Paymaster, Retired List, L.K.Q.C.P., L.K.Q.C.S., eldest son of the late Lieut.-Col. Robert Wright, R.M.L.I., aged 43.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 1st, 1891.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Sept. 25	30·22	S.W.	59	58	94	70	54	·11	Raining
,, 26	29·81	S.W.	61	58	81	65	58	...	Overcast
,, 27	29·95	S.W.	57	53	105	65	52	·04	Cloudy
,, 28	30·16	S.W.	56	53	112	70	49	...	Cloudy
,, 29	30·02	S.W.	59	57	110	71	53	...	Cloudy
,, 30	29·94	S.W.	56	54	113	69	54	·02	Cloudy
Oct. 1	29·63	S.W.	63	60	103	67	55	·02	Cloudy

Medical Diary for the ensuing Week.

Monday, October 5.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

Tuesday, October 6.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

SOCIETY FOR THE STUDY OF INEBRIETY (Rooms of the Medical Society of London, 11, Chandos-street, Cavendish-square, W.).—Dr. Wynn Westcott: Alcoholic Poisoning in London, and Heart Disease as its Fatal Result.—Mr. F. A. A. Rowland: The Principle of Compulsion as relating to Inebriety.

THE SANITARY INSTITUTE (Parkes Museum, Margaret-st., W.)—8 P.M. Sir Douglas Galton: Ventilation, Warming, and Lighting.

Wednesday, October 7.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

OBSTETRICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr. Playfair, Dr. Carter, Dr. Hayes, Dr. Leith Napier, and others. Dr. John Phillips: The Influence of Purpura Hæmorrhagica upon Menstruation and Pregnancy.—Dr. F. J. McCann: Chorea Gravidarum.

Thursday, October 8.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Mr. Howard Barrett and Dr. Mendes de Leon: Ectopic Gestation (with Specimen).

Friday, October 9.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

THE SANITARY INSTITUTE (Parkes Museum, Margaret-st., W.).—8 P.M. Mr. H. Law: Principles of Calculating Areas, Cubic Space, &c.; Interpretation of Plans and Sections to Scale.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Maclagan: Cases of Neuritis and Spurious Arthritis.—Dr. Parkin: Two cases of Disease of the Seminal Vesicles.—Mr. Bruce Clarke: Two cases of Compressed Fracture of the Skull in which the pieces of bone were removed, washed, and replaced; recovery, with complete reunion with the surrounding bone.

Saturday, October 10

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

PRACTICE IN BRITISH COLONIES.

IT appears that British Columbia is not the only Canadian province which insists on examining British practitioners, but that Ontario is equally illiberal. Malta, on the other hand, we are informed, now permits British medical men to practise without forcing them to undergo an examination.

G. L. C.—We understand that to such a query as that of our correspondent the Registrar of the Royal College of Physicians in question is accustomed to reply that in the opinion of the President and Fellows a Fellow, Member, or Licentiate of the College is not entitled legally to call himself "Doctor," or to use the letters "M.D." in virtue of either of the said qualifications. The concluding suggestion by inference is, in our opinion, hardly complimentary to the constituent Members of the College.

Enquirer.—It is usual, but the point is governed by the terms of the agreement.

Brain Asthma.—Probably a misprint for "bronchial asthma."

THE SMALLER PUBLIC HEALTH APPOINTMENTS.

To the Editors of THE LANCET.

SIRS,—As there are no doubt many like myself who are not acquainted with the extent of the changes consequent on the appointment by county councils of medical officers of health to counties, I should be indebted to you if you would kindly answer the following question. In the case of the smaller appointments (say to towns or districts with a population below 15,000 or 20,000), the salaries attached to which, though generally comparatively small, yet still would make a welcome addition to a practitioner's income from private practice, has the appointment of county medical officers made any real change throughout the county in diminishing the number of the smaller appointments or of diminishing their money value? I am, Sirs, yours faithfully,

Sept. 28th, 1891. DELTA.

*** There is no evidence of any such change. But few County Councils have, as yet, made any definite appointments of medical officers of health; and where such appointments have been made, any change that may have taken place has been that the officers in question have generally so acted as to give more weight to the advice and status of the district health officer than heretofore.—ED. L.

AN APPEAL.

To the Editors of THE LANCET.

SIRS,—May we, in the interest of the widow and four children of the late Dr. William Bacon Hodgson, of Grosmont House, Manor Park, Essex, who poisoned himself under very distressing circumstances on Aug. 28th last, appeal through your paper to the members of the profession for help? They are left totally unprovided for and dependent wholly on the widow's mother, who has a small annuity which is barely sufficient to support herself. Unfortunately, Dr. Hodgson did not subscribe to any benevolent fund, and two years ago had the misfortune to become bankrupt. He was educated at Charing Cross Hospital, and this appeal is warmly supported by Dr. Mitchell Bruce and others of that hospital. Any little help will be gladly received, and, we have no doubt, acknowledged in the columns of THE LANCET.

We are, Sirs, faithfully yours,

J. PHILLIP TOPPING, M.B., Forest Gate.
R. J. COLLIER, L.R.C.P. and S.E.
CHOWN MATHER, M.R.C.S.Eng., L.R.C.P.Lond.
J. SHIMELD, L.R.C.P. and S.E.

Sept., 1891. CHAS. J. STOCKER, M.R.C.S.

"PROVIDENT MEDICAL ASSOCIATIONS."

To the Editors of THE LANCET.

SIRS,—I fully sympathise with the medical officer of the Dunstable Friendly Societies' Medical Association in the treatment he has been subjected to by the local medical men. It is perfect nonsense to cast blame on the men who fill these posts. These offices are certainly better than an assistancy with a private practitioner. Let us turn to THE LANCET'S advertisements, and see the miserable pittance some principals offer their assistants. Before I became medical officer to such a society I applied for several vacancies, and was offered respectively the prodigious salaries of £50, with comfortable rooms; £55, ditto; £70 out-, and percentage on midwifery (an average of seventy cases per annum), making the salary £87 10s. out-door, the practice being principally club, and the work abject slavery. One was generous enough to offer £110 out-doors, and for £120 I was required to do the whole of the dispensing and keep the books, the posting of the accounts taking an hour and a half past the time we were supposed to finish at night—namely, 8.30. Can we wonder after this at so many men applying for the friendly societies' posts? The resident medical officer in a Northamptonshire society is an F.R.C.S.Eng. One connected with a Derbyshire society is an M.D.Glas., M.R.C.P.Lond., &c. One in the north of England is an M.D. Lond., F.R.C.S.Eng., and Gold Medallist Lond. Univ. When I was appointed to a Yorkshire post of £250, with residence, there were seventy-two applicants, eleven of whom were either M.D. or M.B Lond., four were Fellows of the R.C.S.Eng., and the rest were all well qualified men. A magistrate, a coroner, and an officer of health for a large borough eagerly sought to fill my position when I resigned. I merely mention these facts to show that there are men of all grades who apply for and obtain these posts. None of the men who hold these offices care for them. There is always an innate feeling of self-degradation, and there is the feeling that one is not acting fairly towards the local practitioners. But what is to be done? Only a few months ago your valued journal commented strongly on the treatment of a friendly society's surgeon at Loughborough. Until there is more unanimity in our profession, and we stand shoulder to shoulder, and emulate the working man in upholding our rights—I say then, and not until then, will this constant eyesore to our profession be a thing of the past. To cancel the registration of a man holding such an appointment would at once abolish these institutions, and make it fairer for all medical men.

Some of the executive of these associations may read this and say that it is a bad bird which fouls its own nest; but I would ask them, What hawker ever cried "Stinking fish"? Apart from the pay, it is a demoralising office at its best; and were your correspondents to know the life and treatment their *confrères* are subjected to by the working-man master, many would, I am sure, modify their sarcasm and show a little more consideration. But, with all its drawbacks, I would hold the office in preference to being "medical hack" to one of your correspondents at £70 per annum—the wages of a foreman bricklayer; or I would even seek the post of a master navvy, where the *bene nati, bene vestiti et mediocriter docti* is not a *sine qua non*.

I am, Sirs, yours obediently,
September, 1891. A FRIENDLY SOCIETIES' SURGEON.

To the Editors of THE LANCET.

SIRS,—In his reply to my letter, Mr. Lathbury carefully avoids the main issue in question. I did not ask him to justify the action (which he acknowledges to be improper) of the committee, but I asked him to justify his own action in the matter. Does he consider it conducive to the dignity of the profession to attend persons for twopence a month (paid monthly)? Does he consider it fair to his medical brethren to try to take their patients away by allowing his services to be given for a totally inadequate payment? As to his remarks about these associations being supported by the medical profession, I presume he means to say that there are always plenty of applicants for these appointments, which only goes to show to what a deplorable state the profession has got.

I am, Sirs, yours faithfully,
Dunstable, Sept. 29th, 1891. FIAT LUX.

"THE MEDICAL TOUT."

To the Editors of THE LANCET.

SIRS,—As the London representative of a large firm of manufacturing pharmacists, paying special attention to improved pharmaceutical products and surgical appliances made in London, will you kindly allow me to make a few remarks on this subject? I am not surprised to read the complaints of Mr. C. Heath and "A. P. H." in your pages, since I have been informed by many medical friends who have been worried by the badgering instincts of a multitude of peripatetic vendors of soaps, meat extracts, malt extracts, compound mixtures or solutions, with secret formulæ &c., and those having preparations manufactured somewhere abroad, and unknown by reputation to the medical man. The travellers with the latter are generally pseudo-medical men whose names cannot be found in the Medical Register. When they call upon a doctor, they send in a card bearing only the name Dr. So-and-so, and frequently are given priority to patients. When once ensconced in the doctor's consulting-room, they deliver a lecture on the peculiar virtues of their goods, and insist firmly on the doctor purchasing some—they, in fact, decline to leave unless absolutely pushed out. Such procedure is decidedly impolitic on the part of the vendor, and can never lead to business. Those representatives having really legitimate cause for calling on medical men are generally, I find, treated very courteously, providing of course the convenience of the doctor is considered; and the profession, as a rule, are quite as anxious to discover good and reliable remedies and appliances as they are new methods for performing surgical operations successfully; they will carefully inspect any improvement recognised as such by the medical press of this country, and, if suitable, prescribe it for their patients. It is self-evident to any doctor that the medical profession has no other means of ascertaining the characteristics of a new product unless it is shown to them. Glowing advertisements simply show the pleasant side of things, whereas actual inspection will afford all information necessary. Quite recently I happened to show two articles to a well-known practitioner, who was delighted with them, and mentioned the fact to a professional brother. A week or so afterwards I received a note from him asking me to call, and he stated that he was surprised I had omitted to show them to him. Apologising for trespassing on your valuable space,

I am, Sirs, yours very respectfully,
September, 1891. A. W. B.

Mr. R. E. Johnson.—It is legitimate in a practitioner to intimate to his own patients changes of address and other arrangements, a knowledge of which is necessary for his and their convenience. But the method of doing so should be the most quiet and private possible. Handbills are to be avoided. A note or card is better; and it is essential that they be addressed carefully and only to the actual patients of the sender.

PROPAGATION OF DISEASE BY GERMS.

To the Editors of THE LANCET.

SIRS,—I recently read a letter in *The Times* in which Sir Spencer Wells referred to the propagation of diseases by germs and seeds. The enclosed extract from the *London Magazine or Gentleman's Monthly Intelligencer* for September, 1752, so confirmatory of Sir Spencer Wells' views, will, I doubt not, interest your readers, if you can find space for it.

I am, Sirs, yours truly,
Beckenham, Sept. 21st, 1891. W. GRAIN.

"The gravedigger at Chelwood in Somersetshire lately opened a grave wherein a man, who died of the small-pox, had been interred about thirty years ago. By the deceased's desire, he was buried in an oak coffin, which was now so firm that it might have been taken out whole; but the gravedigger, not chusing that, forced his spade thro' the lid, when there came forth such a stench that I've never smelt the like before. It being a person of credit that was to be buried in the grave, the whole village attended the funeral, as well as many people from the neighbouring villages; and a few days after fourteen persons were seized in one day with the usual symptoms of the small-pox, and in three days more every soul but two in the whole village, who had not had it, were seized in the like manner. Their disorder proved to be that disease, and was so favourable that no more than two persons died of the whole number, which was about thirty, and one of them was a woman that came down stairs when the pock was at the height and died the same night. The same disorder was carried all round the villages by the country people who attended the funeral, and proved very favourable everywhere."

H. S. Crawshaw.—The stove which ensures complete combustion is the invention of M. O. de Clausen, a Russian civil engineer. Arrangements for its manufacture and sale in England are, we are informed, not yet concluded.

B. H.—It it not satisfactory to leave an *unqualified* assistant in charge, the principal being abroad, even where a partner lives a mile off. It is a kind of arrangement which is disapproved by the General Medical Council.

"PANGAR DJAMBI."

To the Editors of THE LANCET.

SIRS,—In the interesting abstract of Dr. Douthwaite's paper, which appeared in THE LANCET of Jan. 24th, 1891, p. 235, the valuable styptic so well known in Java, "Penghwarar djambi," is referred to as "Pangar djambi." I believe the spelling as given in the "Medical Digest," Section 320:3, to be correct.

I am, Sirs, yours obediently,
Boundary-road, N.W., Sept. 15th, 1891. RICHD. NEALE, M.D. Lond.

"HYDROSTATIC STETHOSCOPES."

To the Editors of THE LANCET.

SIRS,—I was not aware that any hydrostatic stethoscopes were designed or made before mine, as described in THE LANCET of Aug. 1st. I am glad to learn of their existence from the letters of Drs. Day and Neale. More than two years ago I mentioned the idea of mine to Dr. J. E. Kelly of New York and Mr. George Stoker of London.

I am, Sirs, your humble servant,
Liverpool, Sept. 29th, 1891. T. T. REYNOLDS, M.D.

A QUERY.

To the Editors of THE LANCET.

SIRS,—Permit me to inquire through the medium of THE LANCET if it is customary in some municipal boroughs for the medical officers of health to wear academics at any public function—processions, receptions, &c, the mayor, aldermen, chaplain, and town clerk appearing in their respective robes of office.

I am, Sirs, yours truly,
October, 1891. D.P.H.

"UNIVERSITY DEGREES."

To the Editors of THE LANCET.

SIRS,—I thank "M.A.Oxon., M.D.Camb." for his letter. Although I may not have been quite accurate in reference to the Oxford, Cambridge, and Dublin degrees, yet my position as to the equality of these Universities has not been in the least affected. Mr. James Turton, F.R.C.S. Eng., has misunderstood and misquoted me; and if I had the power of inflicting punishment on him, I would insist on his reading every word of my letter over again. As it is, the only punitive measure open to me is to use his phraseology against him; and therefore I say in reference to what he has stated, "that such an assertion is absolutely unwarranted."

I am, Sirs, your obedient servant,

Sept. 26th, 1891. L.R.C.P. IRELAND.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Astley, Hungerford; Dr. Anderson, Newcastle-on-Tyne; Mr. Armstrong, Newcastle-on-Tyne; Dr. Bowden; Mr. Bunch; Mrs. Bidwell, Manchester; Dr. Blandford, London; Mr. Ball, London; Dr. W. Butler, Hoyland Nether; Mr. T. B. Browne, London; Mr. Cornish, Manchester; Mr. Crawshaw, Ashton; Messrs. Crossley, London; Mr. Chapman, London; Dr. W. Dale, Shanklin; Mr. Davies-Colley, London; Mr. Fyffe, Clifton; Mr. Fox, Manchester; Messrs. Fannin and Co., Dublin; Mrs. Foster, Wooton; Mr. H. Feeny; Mr. Fisher, Harrow; Mr. W. E. Fletcher, Ormskirk; Dr. F. E. Griffiths, St. Albans; Dr. Gosford, Liverpool; Mr. Green, London; Sir G. M. Humphry, Cambridge; Dr. Hassall, Lucerne; Dr. T. E. Hill, South Shields; Dr. Hime, Bradford; Dr. Herring, London; Dr. P. Hicks, Leamington; Mr. Hay, Salford; Mr. Hollins, Tamworth; Mr. G. H. Hassell, Leatherhead; Mr. Hornibrook, London; Mr. R. S. Johnson, South Moor; Mr. Kingsford, Surbiton; Messrs. Keene and Ashwell, London; Dr. Kerr, Crawshawbooth; Mr. Laffan, Cashel; Mr. Larkin, Liverpool; Messrs. Longman and Co., London; Messrs. Langton, Hicks Bros., and Co., London; Mr. Mann, London; Mr. McMunn, London; Dr. G. W. Mason, Hull; Mr. Mosse, London; Dr. Mueller, Yackandadah, Vic.; Dr. J. W. Moore, Dublin; Mr. Mason, Barton-on-Trent; Miss Moorhouse, London; Dr. D. Newman, Glasgow; Mr. E. Owen, London; Messrs. Oliver and Boyd, Edinburgh; Messrs. Orridge and Co., London; Mr. E. A. Piggott, Clare; Messrs. Parkins and Gotto, London; Mr. Pentland, Edinburgh; Professor Rummo, Naples; Dr. Ross, Turriff; Dr. Ramsay, York; Mr. Rudall; Mr. A. Roche, Dublin; Mr. J. M. Richards, London; Miss Rowe; Dr. Rice, Oxford; Dr. A. Ross, Sydney; Mr. F. Reth, London; Dr. Railton, Manchester; Dr. T. T. Reynolds, Liverpool; Messrs. G. Street and Co., Cornhill; Dr. Sibley, London; Mr. Straton; Messrs. Steel and Jones, Charing-cross; Mr. Saunders, Manchester; Messrs. Stent and Sons, Guildford; Mr. Sell, London; Mr. H. Sewill; Messrs. G. and G. Stern, London; Dr. H. Snow, London; Mr. Stern, London; Mr. J. Simcock, Ancoats; Mr. W. Smerdon, Liverpool; Mr. Stevens, Beckenham; Dr. Sharkey, London; Mr. Strong, Chelsea; Mr. W. G. Spencer, London; Mr. G. F. Shaw, Dublin; Dr. Thresh; Dr. Turnam, Jedburgh; Dr. Tytler, Ancoats; Mr. Turner, Colchester; Dr. Tomes, St. Colomb; Mr. F. Treves, London; Mr. Vicars; Mr. Wand, Leicester; Mr. G. Webster; Mr. Wood, Pontypool; Mr. Wallace, Colchester; Mr. Willett, London; Mr. S. Yeoman, Morpeth; Mr. Zugman, Harrogate; Dr. Zangger, Zurich; L.R.C.P.I.; Mentor, London; A Friendly Society's Surgeon; Delta; Bott; M.D. & C.M. St. And.; Cheltenham General Hospital; M. S., London; Cantab.; Secretary, West Riding Asylum, Wakefield; Addison, London; Physician, London; Halifax Infirmary; E. E., London; G. L., Kensington; Secretary, Royal Isle of Wight Infirmary; Justitia, London; House Surgeon, Botherham Hospital; Dorset, London; Lady Superintendent, Coventry; Brain Asthma; Yorks, London; Flat Lux.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Tate, Nottingham; Dr. Richards, Hereford; Mr. Cullingford, Tunbridge Wells; Mr. Barry, Bangor; Mr. Jones, Ruabon; Messrs. Giles and Co., London; Mr. Cochrane, Wigtonshire; Messrs. Reynolds and Branson, Leeds; Miss Kenrick, Birmingham; Mr. Nicholls, Bury St. Edmunds; Dr. Wood, Douglas; Mr. Hardy, Maidstone; Mr. May, Tunstall; Mr. Mitchell, Dunster; Miss Hooper, London; Mr. Nash, Weybridge; Mr. Tyte, Minchinhampton; Mr. Hutchinson, Upper Sunbury; Dr. Ward, Oxford; Mr. Gant, Hastings; Messrs. Webster and Webb, Bognor; Dr. McLachlan, Edgbaston; Mr. Norman, North Wales; Dr. Howard, California; Dr. O'Callaghan, Salop; Mr. Jones, Carlisle; Mr. Morgan, Clevedon; Mr. Leckie, London; Mr. Crow, Canterbury; Dr. Rodgers, Bristol; Mr. Dale, Shanklin; Mr. Milnes, Wakefield; Mr. Macleay, Bootle; Mr. Owen, Fishguard; Mr. Gray, Manchester; Mr. Fournet, London; Dr. Treves, London; Miss Bell, Manchester; Dr. Ainley, Halifax; Mr. Lane, Bath; Rev. Mr. Snow, Kendal; Mr. Dearden, London; Mr. Gates, London; Mr. Robertson, Ayrshire; Dr. Ghosal, Shillong; Dr. Scriven, Duffield; Mr Salmond, London; Mr. Pardey, Tasmania; Dr. Boreham, Torquay; Mr. Bush, Chippenham; Mr. Pleydell, Banavi, N.B.; Rev. Mr. Warren, Longford; Mr. Kealey, Middlesbrough; Mr. Field, Dunstable; Mr. Hood, Blairgowrie, N.B.; Dr. Enwright, Waterford; Mrs. Pringle, Nottinghill; Mr. Scott, Manchester; Mrs. Berthend, Southport; Mr. Shand, Elgin; Mr. Birchall, Liverpool; Mr. Thomas, Llanelly; Dr. Croucher, St. Leonards-on-Sea; Mr. Maurice, Basingstoke; Mr. Heywood, Manchester; Mr. Thin, Edinburgh; Dr. Hooper, Ripley; Mr. Woodford, Ventnor; Dr. Garman, Kendal; Mrs. Peck, Ruskington; Mr. Lough, Cardiff; Dr. Moorhead, Hucknall Torkard; Mr. Huntley, Leatherhead; Miss Kesteven, Surbiton; Surgeon, Broughton-in-Furness; Old Marlburian, London; H. & R., London; L. S., London; Shaftesbury Ho, West Ham; Rotunda, London; Hygiene, London; Stourbridge Dispensary; M. B., Manchester; F.R.C.S.E., London; E. C., South Norwood; G., Glasgow; Odin, London; M.B., Leytonstone; Bedford General Infirmary; Z., Zatbury; A. P., London; Secretary, College of State Medicine, Bloomsbury; Partnership, London; Morris Tube Co., London; Rev., Peckham; Tudor, Newcastle-on-Tyne; F., West Hampstead; C. D., London; Liber, London; Secretary, Maternity Hospital, Manchester; Dowker, London; X. N., London; Z., South Norwood; R. L. P., London; Femur, London; Secretary, College of Preceptors, Bloomsbury; 7, Chambers-street, Edinburgh; M.D., London; Y. Z., London; Kibb, London; Matron, General Infirmary, Bedford; A. B., Paddington; G.P., London; A. B., London; Nemo, London; Pax, London; R. S. J., York; T. L., Cambs.; Provincial, London; Medicus, Wilts; Beta, London; Medicus, Margate; A. H. F., Canonbury; Physician, Hampstead.

NEWSPAPERS.—*Evening Citizen, Manchester Examiner, Yorkshire Post, Scottish Leader, Newcastle Leader, North British Daily Mail, Liverpool Daily Post, Leeds Mercury, City Press, Scotsman, Sheffield Daily Telegraph, Bristol Mercury, West Middlesex Standard, Madras Weekly Mail, Natal Mercury, Sunday Times, Builder, Spectator, Surrey Advertiser, Broad Arrow, Chemist and Druggist, Law Journal, Local Government Chronicle, Architect, Saturday Review, Pharmaceutical Journal, West Middlesex Advertiser, Hertfordshire Mercury, Weekly Free Press and Aberdeen Herald, Windsor and Eton Gazette, Reading Mercury, Mining Journal, Insurance Record, National Press (Dublin), Morning Star (Boston, Mass.), Pioneer, Windsor and Eton Express, Dorset County Chronicle, Heckmondwike Herald, Edinburgh Evening Dispatch, The Age (Melbourne), Beckenham Journal, Worcestershire Echo, Accrington Gazette, Pudsey District Advertiser, Devizes Gazette, Citizen, Liverpool Mercury, Nottingham Guardian, Essex Standard, Bath Herald, Staffordshire Sentinel, Dartmouth Chronicle, Alnwick Guardian, Tiverton Gazette, The Doctor, &c.*, have been received.

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